

*Hyle*

PRELIMINARY REPORT

AT SEA SURVEY

MAY - JUNE 1967

LEEWARD ISLANDS #19

Prepared by Robert L. DeLong



Leewards Island Survey # 19  
Preliminary Report, At-Sea Survey  
May - June 1967

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This report summarizes at-sea observations by Smithsonian personnel during Leeward Island Survey 19, 23 May - 14 June, 1967. Excellent cooperation was received from officers and crew of the light tugs.

After departing Honolulu May 23, a stop was made at French Frigate Shoals to disembark personnel (Amerson and Lewis) and their gear on 25 May. On 26 May, Gardner Pinnacles was visited and on 28 May a stop was made at Pearl and Hermes Reef. From there the vessels proceeded directly to Midway Island for refueling, and returned to Pearl and Hermes on 30 May. The vessels moved to Lisianski June 1-2, moved on to Laysan June 6-7, and departed Laysan June 12, arriving in Honolulu June 15.

Interisland and off shore (within 2 miles of land) observations are incomplete as preparations were being made for island landings. No collecting at sea was done on this survey. Loran and celestial fixes were used throughout the trip. Weather was generally good throughout the survey.

In ten days (23-25, 26\*-28\* 30\* May, and 12 - 14 June), 82.4 hours of observations over 1054 diurnal miles were covered. During this period, 4623 birds of 19 species were recorded, after eliminating presumed duplicate sightings from the two ships. Simultaneous observations were conducted from two ships during 5 days (24 - 28 May) of the outbound leg, totaling 40.8 hours and covering 421 miles. The vessels were side-by-side and separated four miles to test the basic assumption that two independent observers traveling the "same" track will see the same birds. On the return trip, diurnal observations were shared by the two vessels with the observing vessel always in the leading position. These separate observations were then lumped to give daily totals.

Discussion: By using identical vessels and operating over the "same" waters at the same times, we have eliminated many of the variables encountered in comparison of at-sea observations taken at different times, under varying conditions.

As can be seen from table 3, daily totals show large variances between observers on the two ships. The large discrepancies generally lie in the number of flocks seen by the independent observers, i.e. one observer records a flock of Sooty Terns and Wedge-tailed Shearwaters that is not visible to the other observer, thus increasing his total birds well above the other observer.

Probably more comparable is the number of species seen each day by the two observers. As seen from table 3, this number does vary between observers. During the 5-day test period, observers on Vessel A saw two sea bird species not recorded on Vessel B, and Vessel B recorded four sea bird species and two accidental species not recorded by Vessel A. These non-mutually observed species were usually a single sighting of sometimes a few birds, thus may not be as significant as they appear. However, there remains a difference;

\* Partial days of observation.



it represents 24 o/o of the total species recorded by Vessel B. This percentage figure makes the difference appear too significant unless the observer is interested in every possibility of species occurrence. If so, in this case two independent observers did not record the same species.

Why did not both observers record all of the same birds? It is a matter of distribution. An example: If we use a three foot square sample plot and spread, randomly, 30 red and 30 blue marbles and two green and two yellow marbles on this sample plot, any two similar transects will probably sample representatively the common marbles (red and blue) but probabilities are slight that both transects will sample the uncommon marbles (green and yellow). Thus it is with sampling bird populations. Both observers record representative numbers of common birds species, but uncommon species of low density may not be recorded by both observers.

Secondly, there is variance between observers. Observers vary in quality, but perhaps more important, individual observers vary through time. Extended periods of observations "dull" an observer. Two observers on duty can, and often do, cause mutual distraction and at times an observer may not fee up to normal. All of these lessen the uniformity, and hence the quality of the observations.

In species accounts that follow, species totals for the cruise include, for the periods duplicate observations, only the observations from Vessel A.

#### Laysan Albatross

31

Low albatross numbers are believed to result from recording techniques used for ship followers. By convention, only the daily high numbers are recorded as daily totals (This assumes that the ship followers accumulate during the day). Albatross do not follow for extended periods the small vessels used on this survey. Hence, the totals recorded are low and not indicative of actual densities. One concentration of 16 birds was recorded on 30 May between Midway and Pearl and Hermes.

#### Black-footed Albatross

72

The greater number of this species recorded over Laysan Albatross probably indicates this species' greater tendency to follow ships. These numbers are low for reasons outlined in the preceeding account and are believed not to reflect actual densities.

#### Wedge-tailed Shearwater

1766

Ten dark phase birds were recorded, primarily in the main Hawaiian Islands. Only one dark phase bird was recorded in the western leeward island area. Dark phase birds were also uncommon among the breeding populations present in the western leeward islands. This species represented 38.2°/° of total birds observed. They were found commonly in feeding flocks as usual.

#### Buller Shearwater

1

One bird was recorded on 30 May at 28° N, 177°18' W.

#### Sooty Shearwater

4

Only four birds were recorded. Three of them were in the main Hawaiian Islands and one recorded between Midway and Pearl and Hermes Reef.



Newell Shearwater

27

All but one of these birds were recorded off the south end of Niihau Island. The birds were feeding there in late evening.

Christmas Shearwater

2

The two birds were recorded enroute to French Frigate Shoals. As on last June's cruise, no birds were recorded at sea over the western leewards where they are breeding and on eggs at this time.

Dark-rumped Petrel

1

Only one bird was positively recorded as this species, near Niihau on 24 May.

Bonin Petrel

47

The majority (38) of these birds were recorded 27 May while passing 60 miles offshore of Lisianski Island.

Bulwer Petrel

128

Main concentrations were in waters near main Hawaiian Islands. The birds might be breeding here at this time. At-sea numbers are low in western leewards where birds were found on eggs.

Leach/Harcourt Storm Petrel

2

These were recorded only as white rumped storm petrels, and belong to one of the above species.

Red-tailed Tropicbird

8

The low numbers of tropicbirds recorded might have two possible explanations. The birds are normally attracted to larger ships and, like the albatross, do not follow the small ships. Or, the birds were on eggs and spending much of the daytime courting over the islands, thus limiting their pelagic movements.

Blue-faced Booby

30

Small numbers were recorded throughout the cruise with concentrations near Gardner Pinnacle (a breeding area) and in the vicinity of Kaula Rock off Niihau.

Brown Booby

18

Only one bird was recorded in the western leewards. The remaining 17 birds were recorded on 14 June in the vicinity of Niihau.

Red-footed Booby

69

The most abundant booby recorded, because of the 55 observed on 14 June, near Niihau.

Great Frigate

29

Seen in small numbers throughout the entire survey. They were generally associated with feeding flocks.

Pomarine Jaeger

6

All observed offshore of Oahu on 23 May.



Skua

2

Two birds were recorded on 13 June in the vicinity of French Frigate Shoals. Another bird was seen by Vessel B during duplicate observations in the western leewards.

Ruddy Turnstone

15

Eleven birds were recorded off Pearl and Hermes Reef on 28 May, three off the same atoll on 30 May and one off Laysan Island on 12 June.

Wandering Tattler

1

One bird was seen off French Frigate Shoals.

Arctic Tern

3

Three birds were recorded as this species by observers on Vessel B during duplicate observations.

Sooty Tern

1447

This species represented 31.9 percent of the total birds recorded (second only to Wedgetails).

Recorded densities were highest in the western leeward islands where there are large breeding colonies. Daily numbers were not as high as might be expected, but probably represent normal pelagic numbers. Had offshore observations (within 2 miles of land) been taken, totals would have been much higher. All birds recorded were adults.

Gray-backed Tern

57

Small numbers were recorded in the western leewards, but nearly half of the total were recorded near Niihau on 14 June.

Blue-gray Noddy

4

Four birds were recorded near Gardner Pinnacles on 26 May.

Brown Noddy

189

The species was recorded daily (generally in feeding flocks) in the western leewards. A large concentration of 107 birds (62 percent of the total) was seen on 14 June near Niihau.

Black Noddy

39

Thirty-one of the birds were seen off Pearl and Hermes Reef on 30 May. The remaining birds were seen, a few each day, enroute to Oahu from Laysan Island.

White Tern

185

Regular sightings were recorded in the western leewards. On 30 May, between Midway and Pearl and Hermes, 113 birds were recorded. The majority of these were in feeding flocks, but many were single sightings as well.



TABLE I.

## SUMMARY OF NON DUPLICATE OBSERVATIONS

Species	May 23	May 28	May 30	June 12	June 13	June 14	Totals
Laysan Albatross		15	16	2		1	34
Black-footed Albatross		16	30	6	2		54
Sooty Shearwater			1			1	2
Wedge-tailed Shearwater	88	13	61	381	38	189	770
Newell Shearwater					1	26	27
Buller Shearwater			1				1
Christmas Shearwater			1				1
Bonin Petrel			1	7	1		9
Dark rumped Petrel							
L. <u>Pterodroma</u>				1(P.e.e.)		1	2
S. <u>Pterodroma</u>			1			1	2
Bulwer's Petrel	1		1	2	5	50	59
Leach's Petrel							
Storm Petrel sp.							
Shearwater/Petrel						1	1
Procellariidae							
Red-tailed Tropicbird		2	1	1	4		8
Red-footed Booby	3		1	3	2	55	64
Blue-faced Booby			2		3	10	15
Brown Booby						17	17
Booby sp.							
Great Frigatebird		3	1	4	2	2	12
Tern sp.							
Gray-backed Tern		1	5	7	9	24	46
Sooty Tern	74	38	171	209	77	157	726
White Tern		17	113	4		7	141
Arctic Tern							
Sterna sp.						2	2
Brown Noddy	14	1	1	1	5	107	129
Black Noddy		21	31	2	1	5	60
Blue-gray Noddy							
Noddy sp.						1	1
Skua					2		2
Pomarine Jaeger	6						6
Jaeger							
Ruddy Turnstone			3	1			4
Golden Plover							
Wandering Tattler							
Phalarope							
TOTALS	186	127	441	631	152	657	2195
HOURS	2.5	2.2	6.3	11.0	12.3	13.0	47.3
MILES	25	30	74	128	139	145	541



TABLE II.

SPECIES OBSERVATIONS, DUPLICATE OBSERVATION PERIOD, LEEWARDS 19, 24-28 May 1967

DATE VESSEL	24 May		25 May		26 May		27 May		28 May		TOTALS	
	A	B	A	B	A	B	A	B	A	B	A	B
Laysan Albatross			2	4		1	6	37	1	3	9	45
Black-footed Albatross	4		16	41	4	17	10	34	3	3	37	95
Sooty Shearwater												
Wedge-tailed Shearwater	338	345	65	204	300	150	298	175	8	27	1009	901
Newell's Shearwater		3										3
Christmas Shearwater	1	2	1					1			2	3
Bonin Petrel							38	35			38	35
Dark-rumped Petrel												
Bulwer's Petrel	49	46	8	15	4	5	8	1			69	67
Leach's Petrel	1			2				2			1	4
Storm Petrel sp.	2		1								3	
Shearwater/Petrel	363	5	3	1			6				372	6
Red-tailed Tropicbird					1		1	1		1	2	2
Red-footed Booby	8	12	1	3							9	16
Blue-faced Booby				3	15	1	2				17	4
Brown Booby					1						1	
Great Frigatebird	7	4	3	3	8	2	2				20	9
Gray-backed Tern	3				7	8	2				12	8
Sooty Tern	43	133	110	433	521	211	64	22	21	29	759	828
Brown Noddy	7	4	10	14	29	3	15			6	61	27
Black Noddy				1								1
Blue-grey Noddy					4	2					4	2
White Tern	46	58	4	4	9		2	2		1	61	65
Miscellaneous	2		52	2	3		4	3	11	5	72	10
TOTALS	874	612	276	730	906	400	458	314	44	75	2558	2131



TABLE III.

SUMMARY OF DUPLICATE OBSERVATIONS, LEEWARDS 19, 24-28 May 1967

May	24		25		26		27		28		Totals	
Vessel	A	B	A	B	A	B	A	B	A	B	A	B
# Hours	11.3		5.4		9.5		13.6		1.0		40.8	40.8
# Sightings	146	159	84	99	87	65	146	158	22	27	485	508
# Flocks	11	9	2	9	6	4	1	2	2	2	22	26
# Species	13	16	10	15	13	10	13	13	5	8	19	25
Total Individuals	874	612	276	730	904	400	458	314	44	75	2556	2131



Date 24 MAY 67 Ship LT 2087 ) Cruise No. \_\_\_\_\_  
Organization SI Recorder 2087

Sunrise: Time 0603 Position: Lat. 21-46, Long. 161-05

Sunset: Time 1931 Position: Lat. \_\_\_\_\_, Long. \_\_\_\_\_

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 170

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt. Air Temp.

0100						
0200						
0300						
0400						
0500						
0600	21-46N	161-05W	095T	23	090	3-5'
0700	5135	161-05W				
0800	21-56N	161-26W	095T	23	090	4-6
0900	38 38	30 214				
1000	22-07N	161-54W	095T	23	090	4-6
1100	38	08 214				
1200	22-21N	162-22W	095T	23	090	4-6
1300	33	162-35 313				
1400	22-31N	162-45W	095	21	090	5-6'
1500	35	37				
1600	22-41N	163-02W	090	25	090	5-6
1700	35	13 212				
1800	22-51N	163-25W	095	25	090	4-6
1900	2	37 213				
2000	22-53N	163-50W	093	25	090	2-4
2100						
2200						
2300						
2400						



Date 25 MAY Ship LT 2087 ) Cruise No. \_\_\_\_\_  
Organization SI Recorder LT 2087

Sunrise: Time 0620 Position: Lat. 23-49N Long. 165-45W

Sunset: Time 1948 Position: Lat. \_\_\_\_\_, Long. \_\_\_\_\_

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 50

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
-------------	-------------	----------	-----------

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt. Air Temp.

0100						
0200						
0300						
0400						
0500						
0600	23-49N	165-45W	075	15	070	4-5
0700	52 <sup>53</sup>	38				
0800	23-55N	166-05W	065	18	065	4-6
0900	-3 <sup>5</sup>	10 <sup>58</sup>				
1000	23-50W	166-19-30W	063	14	063	1-2
1100	/	/				
1200	23-50N	166-19-30N	060	10	065	1-2
1300	/	/				
1400	23-50N	166-19-30N	065	10	065	2-4
1500	49					
1600	23-48N	166-22W	064	14	070	1-2
1700	34	27				
1800	23-55N	166-32W	070	12	060	4-5
1900	24-00 <sup>55</sup>	41	0			
2000	24-05N	166-50W	070	15	065	4-6
2100	24-23N					
2200						
2300						
2400	24-23N	167-12W	070	14	065	1-2



Date 26 MAY Ship LT2087 ( ) Cruise No.             
 Organization SI Recorder LT2087

Sunrise: Time 0623 Position: Lat.           , Long.           

Sunset: Time 2005 Position: Lat.           , Long.           

Miles travelled from 0000 hours to sunrise =           

Miles travelled from sunrise to sunset = 123

Miles travelled from sunset to 2400 hours =           

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

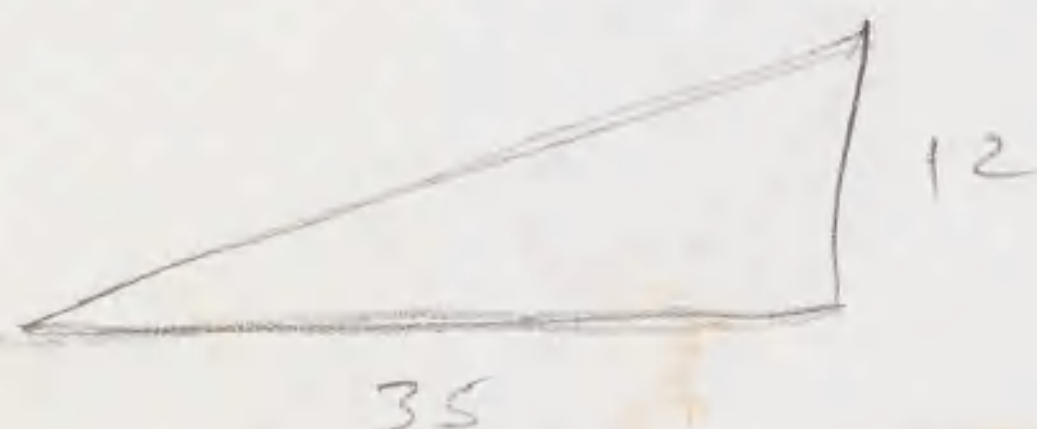
1.

2.

3.

4.

5.



123 - 12

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100						
0200						
0300						
0400						
0500						
0600	25-15N	167-45W	088	11	090	3-5
0700	8 <sup>22</sup> 25-08N	52 <sup>57</sup> 167-59-55W	080	8	100	4-5
0800						
0900						
1000	25-00N	167-59-55W	080	10	100	4-5
1100	02 <sup>52</sup> 25-05N	01 <sup>52</sup> 168-03W	050	10	070	4-5
1200						
1300	11 <sup>56</sup> 25-17N	20 <sup>51</sup> 168-32W	055	10	070	3-5
1400						
1500	22 <sup>55</sup> 25-28N	52 <sup>54</sup> 169-06W	055	11	070	3-4
1600						
1700	30 <sup>52</sup> 25-33N	10 <sup>54</sup> 169-15W	060	12	070	3-4
1800						
1900	6 <sup>53</sup> 25-43	28 <sup>53</sup> 170-33W	060	12	070	3-4
2000	9 <sup>53</sup>	41 <sup>53</sup>				
2100						
2200						
2300						
2400						

1  
2  
3  
4  
5  
6

17

22  
28

45  
23  
76  
13



Date 27 May 67 Ship L1-2087 ( ) Cruise No. \_\_\_\_\_

Organization SI Recorder L12087

Sunrise: Time 0635 Position: Lat. 26° 27' Long. 171° 45'

Sunset: Time 2022 Position: Lat. \_\_\_\_\_, Long. \_\_\_\_\_

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 134

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100						
0200	26-05	170-55	080	10	070	3-4
0300						
0400						
0500						
0600	22-26N	171-41N				
0700	862	4938				
0800	30	5839				
0900	32	0639				
1000	26-34N	172-15W				
1100	4137	4833				
1200	26-48N	173-21W				
1300	49	11310				
1400	26-50N	173-00W				
1500	5333	12312				
1600	26-56N	173-24W				
1700	5933	36312				
1800	27-02N	173-40W				
1900	5333	5335				
2000	27-04.5N	173-58W				
2100	1133	34320				
2200	27-15N	174-18W				
2300						
2400	27-25N	174-22W				

15  
19  
4 34  
8.5

45  
21  
2 66  
33



SR - 548 (6647)

SS - #3/5mc - miles 74 miles

1300 -

2000

6.45

12 5mc miles to 1200 48 miles

13

2.2

3



Date MON 28 1967 Ship LT 2007 Cruise No. \_\_\_\_\_  
Organization SI Recorder Thompson

Sunrise: Time 0647 Position: Lat. 27°38', Long. 175°31'

Sunset: Time \_\_\_\_\_ Position: Lat. \_\_\_\_\_, Long. \_\_\_\_\_

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to <sup>0900</sup>~~sunset~~ = 30

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
-------------	-------------	----------	-----------

1.

2.

3.

4.

5.

#### Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200						
0300						
0400						
0500						
0600	27°37'	175°24'				
0700	9'	33'				
0800	40'	42'				
0900	27°42'	175°50'				
1000						
1100						
1200						
1300						
1400						
1500	AT Pearl + Hermes Reef					
1600						
1700						
1800						
1900						
2000						
2100						
2200						
2300						
2400						



Date 30 MAY 67 Ship 472087 ( ) Cruise No. \_\_\_\_\_

Organization LT2087 Recorder \_\_\_\_\_

Sunrise: Time \_\_\_\_\_ Position: Lat. \_\_\_\_\_, Long. \_\_\_\_\_

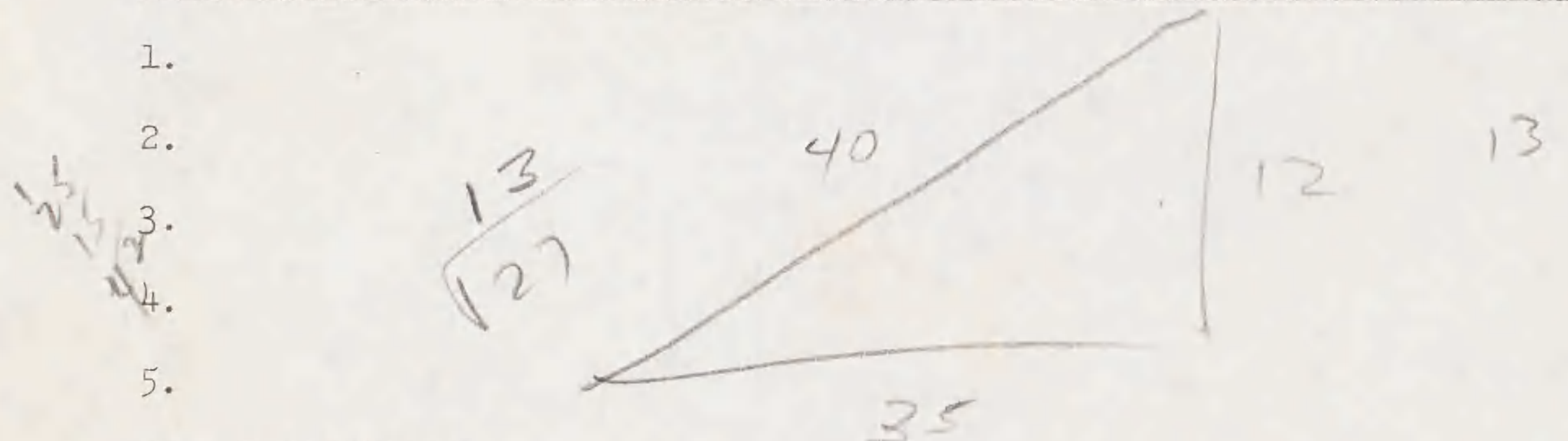
Sunset: Time \_\_\_\_\_ Position: Lat. \_\_\_\_\_, Long. \_\_\_\_\_

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to <sup>1600</sup>~~sunset~~ = 74

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.				
2.				
3.				
4.				
5.				



Hourly Positions:

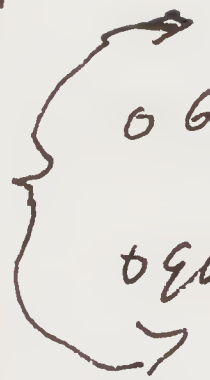
Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200						
0300						
0400						
0500						
0600				13		
0700				20		
0800				21		
0900	28° 10' 24"	177° 24'				
1000	06° 23'	172° 12'				
1100	03° 23'	170° 54'				
1200	28° N	176° 47' W	305	12	120	3-4
1300	02° 22'	174° 10'				
1400	28° 03' N	176° 20' W				
1500	27° 52' 10"	175° 15' 15"				
1600	27° 42'	175° 50' W				
1700						
1800						
1900						
2000						
2100						
2200						
2300						
2400						

Handwritten notes: 'S', 'N', '0400' with arrows pointing to specific rows in the table.

Handwritten calculations and notes on the right margin, including vertical sums and 'Lisumk: 20'.



24 MAY 1967  
to Pearl & Hama



0600

$27^{\circ}37'$

$175^{\circ}24'$

0900 -

$27^{\circ}42'$

$175^{\circ}50'$

$30^{\circ}$



Date 12 June 67 Ship LT 2087 ( ) Cruise No.           

Organization NAVY Recorder LT 2087

Sunrise: Time 0632 Position: Lat.           , Long.           

Sunset: Time 2006 Position: Lat.           , Long.           

Miles travelled from 0000 hours to sunrise =           

Miles travelled from sunrise to sunset =           

Miles travelled from sunset to 2400 hours =           

TIME OF FIX      TYPE OF FIX      LATITUDE      LONGITUDE

1. 0830: 25° 33'N, 174° 55'
2. 35  
18  
17
3. 4  
51  
13  
8
4. 21  
13  
9 15
5. 4  
51  
15  
16  
18
- Hourly Positions:

Time      Latitude      Longitude      Wind Dir.      Wind Sp.      Wave Dir.      Wave Hgt.

0100						
0200						
0300						
0400				25		
0500				14		
0600						
0700						
0800	35	02 13				
0900	32	49 54				
1000	26-29N	172-35W				
1100	27	17				
1200	25-26N	171-02W				
1300	23	57 35				
1400	25-20N	170-51W				
1500	14	33				
1600	25-02N	170-15W		25		
1700	43	03 24		10		
1800	25-00N	169-50W				
1900	062	40				
2000	25-11N	169-30W				
2100						
2200	25-21N	169-13W				
2300						
2400						



14 June

Long-tail Albatross	1	1	1 ✓
Pterodroma Longis	1	1	1 ✓
W + Sh	8, 18, 47	83 + 106 =	189 ✓
Puffins	2 - 15 - 6	23 + 27 =	50 ✓
H + B tern	4 - 1 - 9	14 + 10	24 ✓
White tern	2 - 4	6 + 1	7 ✓
Sooty tern	10, 2 - 34	46 + 111	157 ✓
H Frigate	1 - 1	2	2 ✓
RFB	1, 19	20 + 35	55 ✓
Hi. C. Noddy	11 - 29	40 67	107 ✓
BFB	- 4	4 + 6	10 ✓
S tern	1	1	1 ✓
Ha. Noddy	5	5	5 ✓
Noddy Sp	1	1	1 ✓
S tern sp.	2	2	2 ✓
Pterodroma sp	1	1	1 ✓
B. Booby	1	1 + 16 =	17 ✓

251

Newell's

Sooty/s/b S tern

26 ✓

1 ✓

~~655~~

657



Date 23 May 67 Ship Lt 2086 ( ) Cruise No. \_\_\_\_\_

Organization \_\_\_\_\_ Recorder \_\_\_\_\_

~~Sunrise~~: Time 1425 <sup>Dusk P.H.</sup> Position: Lat. \_\_\_\_\_, Long. \_\_\_\_\_

Sunset: Time 1909 Position: Lat. 21° 19' N, Long. 158° 48'

Miles travelled from 0000 hours to sunrise = 0

Miles travelled from sunrise to sunset = 48

Miles travelled from sunset to 2400 hours = 60

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0300	RADAR	21°-27' N	160°-32' W
2.	0433	RADAR	21°-37' N	160°-49' W
3.				
4.				
5.				

Hourly Positions:

Time   Latitude   Longitude   Wind Dir.   Wind Sp.   Wave Dir.   Wave Hgt.

0100						
0200						
0300						
0400						
0500						
0600						
0700						
0800						
0900						
1000						
1100						
1200						
1300						
1400						
1500						
1600	21° 15' N	158° 15' W				
1700	21° 15' N					
1800	21° 16' N	158° 28' W				
1900	21° 16' N					
2000	21° 20' N	159° 03' W				
2100	21° 20' N					
2200	21° 25' N	159° 32' W				
2300						
2400	21° 28' N	159° 53' W				



Date 24 May Ship IT 2086 ( ) Cruise No.             
 Organization                                  Recorder                                 

Sunrise: Time 0603 Position: Lat. 21-45, Long. 161-07  
 Sunset: Time 1931 Position: Lat. 22-47N, Long. 163-35W

Miles travelled from 0000 hours to sunrise = 75

Miles travelled from sunrise to sunset = 162

Miles travelled from sunset to 2400 hours = 52

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
-------------	-------------	----------	-----------

1. 0600	LORAN	21° 47'	161° 15'
---------	-------	---------	----------

2.

3.

4.

5.

# Hourly Positions:

Time Latitude Longitude Wind Dir. ~~Wind Sp.~~ Wave Dir. ~~Wave Hgt.~~

Time	Latitude	Longitude	Wind Dir.	<del>Wind Sp.</del>	Wave Dir.	<del>Wave Hgt.</del>
0100						
0200	21-28 N	160-20 W				
0300						
0400	21-35 N	160-43 W				
0500						
0600	21-47 N	161-15 W				
0700	54	31				
0800	22-00 N	161-47 W	075 @ 22	4	080 @ 4-6'	72 76
0900	05	54				
1000	22-10 N	162-00 W				
1100	12	10				
1200	22-15 N	162-19 W	075 23	4	025 4-6'	76 78
1300	20	24				
1400	22-24 N	162-29 W				
1500	28	40				
1600	22-32	162-52 W				
1700	40	10				
1800	22-47 N	163-27 W	075-22	4	025-2-4'	75 77
1900	52	39				
2000	22-56 N	163-51 W				
2100						
2200	23-07 N	164-15 W				
2300						
2400	23-10 N	164-25 W	075-20	4	090-2-4'	72 76



Date 25 MAY Ship LT 2086 ( ) Cruise No. \_\_\_\_\_

Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0616 Position: Lat. 23-45, Long. 165 44 W

Sunset: Time 1947 Position: Lat. 24 00 N, Long. 166 38 W

Miles travelled from 0000 hours to sunrise = 75

Miles travelled from sunrise to sunset = 55

Miles travelled from sunset to 2400 hours = 29

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
--	-------------	-------------	----------	-----------

1.

2.

3.

4.

5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200	23-21 N	164-55 W				
0300						
0400	23-30 N	165-19 W				
0500						
0600	23-43 N	165-41 W	075-15	6	025-2-4	72-74
0700	45	11-15T				
0800	FRENCH 448	FRIGATE 01	SHOAL			
0900	23 11 S	166 10	"			
1000	"	"	"			
1100	"	"	"			
1200	FRENCH	FRIGATE	SHOAL			
1300	"	"	"			
1400	"	"	"			
1500	"	"	"			
1600	FRENCH	FRIGATE 166-10	SHOAL			
1700	54	22				
1800	23-58 N	166-34 W	075 10	3	035 2-4	77
1900	24 02	40				
2000	24-06 N	166-46 W				
2100						
2200	24-15 N	166 58 W				
2300						
2400	24-33 N	167-32 W	075 13	6	025 2-4	70



Date 26 MAY Ship LT 2086 ( ) Cruise No. \_\_\_\_\_

Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0622 Position: Lat. 24-49, Long. 167 44

Sunset: Time 2001 Position: Lat. 25-25N, Long. 169-23

Miles travelled from 0000 hours to sunrise = 38

Miles travelled from sunrise to sunset = 99

Miles travelled from sunset to 2400 hours = 50

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0440	CELESTIAL	24-41 N	167 37 W
2.	1315	RADAR	25 05 N	168 13 W
3.	2027	CELESTIAL	25 39 N	169 43
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200	24-32 N	167-22 W				
0300						
0400	24-40 N	167-33 W				
0500						
✓ 0600	24-42 N	167-43 W	078-12	7	030-2-4	70
0700	54	51				
0800	GARDNER	PINNACLES				
0900						
1000						
1100						
✓ 1200	GARDNER	PINNACLES				
1300	25 00	168 00				
1400	25 08 N	168-23 W				
1500	12	36				
1600	25-16 N	168-47 W				
1700	20	61 00				
✓ 1800	25 29 N	169 13 W	083 20	6	090 2-4	74 75
1900	28	25				
2000	25-33 N	169-38 W				
2100						
2200	25-46 N	170-02 W				
2300						
✓ 2400	25-54 N	170 28 W	087 18	4	090 2-4	72 74



Date 27 May Ship LT 2086 ( ) Cruise No.           

Organization                                  Recorder                                 

Sunrise: Time 0634 Position: Lat. 26-21 N Long. 171 45 W

Sunset: Time 2023 Position: Lat. 27-08 N, Long. 174 10 W

Miles travelled from 0000 hours to sunrise = 78

Miles travelled from sunrise to sunset = 122

Miles travelled from sunset to 2400 hours = 30

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0530	CELESTIAL	26-16N	171-31 W
2.	2056	CELESTIAL	27-11 N	174 09 W
3.				
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	Temp	BAROMETER
0100								
0200	26-03 N	170-53 W						
0300								
0400	26-11 N	171-17 W						
0500								
0600	26-18 N	171-37 W	110-17	8	090-2-4	72	73	
0700	22	50						
0800	26-27 N	172-03 W						
0900	31	15						
1000	26-35 N	172-28 W						
1100	39	40						
1200	26-43 N	172-53 W	130 18	6	090-2-4	79	73	3026
1300	45	01						
1400	26-48	173-10 W						
1500	52	14						
1600	26-55 N	173-28 W						
1700	58	38						
1800	27 01 N	173-48 W	130 15	2	090-2-4	73	74	3019
1900	05	54						
2000	27-08 N	174-01 W						
2100								
2200	27 14 N	174-23 W						
2300								
2400	27-20 N	174 37 W	132 18	2	090 2-4	72	74	3022



Date 28 May 67 Ship LT2086 ( ) Cruise No. \_\_\_\_\_

Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0646 Position: Lat. 27-39 N, Long. 175-34

Sunset: Time 2033 Position: Lat. 27-43 N, Long. 176-00 W

Miles travelled from 0000 hours to sunrise = 54

Miles travelled from sunrise to sunset = 25

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
--	-------------	-------------	----------	-----------

1.	0413	CELESTIAL	27-33 N	175-10 W
----	------	-----------	---------	----------

2.

3.

4.

5.

# Hourly Positions:

Time Latitude Longitude Wind Dir. <sup>8 SPEED</sup> Wind Sp. <sup>CLOUD COVER</sup> Wave Dir. <sup>4 HGT</sup> Wave Hgt. <sup>TEMP</sup> <sup>BAROMETER</sup>

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200	27-26 N	174 54 W				
0300						
0400	27-30 N	175-09 W				
0500						
0600	27-38 N	175-27 W	178-22	8	090 2-4	70 74
0700	41	35				
0800	27 45	175 43 W				
0900						
1000	PEARL & HERMES	REEF				
1100	"	"	"			
1200	PEARL & HERMES	REEF				
1300	"	"	"			
1400	"	"	"			
1500	"	"	"			
1600	"	"	"			
1700	"	"	"			
1800	PEARL & HERMES	REEF				
1900						
2000	27-43 N	175-58 W				
2100						
2200	27-47 N	176-11 W				
2300						
2400	27-52 N	176-25 W	350-20	7	020-2-4	69

3014

3014



Date 29 May Ship KT 2086 ( ) Cruise No. \_\_\_\_\_

Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0653 Position: Lat. 28-08N, Long. 177-13W

Sunset: Time \_\_\_\_\_ Position: Lat. \_\_\_\_\_, Long. \_\_\_\_\_

Miles travelled from 0000 hours to sunrise = 69

Miles travelled from sunrise to sunset = 8

Miles travelled from sunset to 2400 hours = 0

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0532	RADAR	28-05N	177 02 W
2.				
3.				
4.				
5.				

Hourly Positions:

Time Latitude Longitude <sup>+ SP</sup> Wind Dir. <sup>CLOUD LOWEST</sup> Wind Sp. <sup>4 HT</sup> Wave Dir. <sup>TEMP</sup> Wave Hgt. <sup>BALANCE</sup>

0100							
0200	27-57 N	176-40 W					
0300							
0400	28-02 N	176 54					
0500							
0600	28-06 N	177-06 W	185 8	9	245 1-2	71	73
0700							
0800	MIDWAY	ISLAND					
0900	"	"					
1000	"	"					
1100	"	"					
1200	"	"					
1300	"	"					
1400	"	"					
1500	"	"					
1600	"	"					
1700	"	"					
1800	"	"					
1900	"	"					
2000	"	"					
2100	"	"					
2200	"	"					
2300	"	"					
2400	"	"					



Date 30 MAY 67 Ship LT 2086 ( ) Cruise No. \_\_\_\_\_

Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time \_\_\_\_\_ Position: Lat. \_\_\_\_\_, Long. \_\_\_\_\_

Sunset: Time 2027 Position: Lat. 27-46N, Long. 175-4E

Miles travelled from 0000 hours to sunrise = 0

Miles travelled from sunrise to sunset = 90

Miles travelled from sunset to 2400 hours = 0

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	<u>1025</u>	<u>RADAR</u>	<u>28 02</u>	<u>176-57 W</u>
2.				
3.				
4.				
5.				

# Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	Barometer
0100	<u>MIDWAY A/</u>						
0200	"						
0300	"						
0400	"						
0500	"						
0600	"						
0700	"						
0800	"						
0900							
1000	<u>28-04N</u>	<u>177-03W</u>					
1100							
1200	<u>27-55N</u>	<u>176-32W</u>	<u>352 22</u>	<u>7</u>	<u>010 4-6</u>	<u>72</u>	<u>30-18</u>
1300							
1400	<u>27-46N</u>	<u>176-11W</u>					
1500							
1600	<u>PEARL</u>	<u>HERMES</u>	<u>REEF</u>				
1700	"	"	"				
1800	"	"	"				
1900	"	"	"				
2000	"	"	"				
2100	"	"	"				
2200	"	"	"				
2300	"	"	"				
2400	"	"	"				



Date 12 June Ship LT 2086 ( ) Cruise No. \_\_\_\_\_

Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time \_\_\_\_\_ Position: Lat. \_\_\_\_\_, Long. \_\_\_\_\_

Sunset: Time 2009 Position: Lat. 24-47N Long. 169°35'W

Miles travelled from 0000 hours to sunrise = 0

Miles travelled from <sup>DEPARTURE</sup> sunrise to sunset = 134

Miles travelled from sunset to 2400 hours = 44

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1. 0802 DEPARTED LAYSAN ISLAND
2. 2045 CELESTIAL 24°45'N 169°27'W
- 3.
- 4.
- 5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	Baromet. P.
0100	LAYSAN	ISLAND					
0200	"	"					
0300	"	"					
0400	LAYSAN	ISLAND					
0500	"	"					
0600	LAYSAN	ISLAND					
0700	"	"					
0800	LAYSAN	ISLAND					
0900							
1000	25-36 N	171-26 W					
1100							
1200	25-30 N	171-11 W	115-8 KNOTS	4	090 2-4	80	77
1300	25	71 01					
1400	25-21 N	170-51 W					
1500	14	34					
1600	25-06 N	170-18 W					
1700	01	07					
1800	24-57 N	169-55 W	100 10 KNOTS	3	090 2-4	80	77
1900	52	45					
2000	24-48 N	169-35 W					
2100							
2200	24-39 N	169-13 W					
2300							
2400	24-30 N	168 50	130 8	-	090 2-4	76	77



Date 13 JUNE Ship LT 2086 ( ) Cruise No.           

Organization                                  Recorder                                 

Sunrise: Time 0623 Position: Lat. 23 54 N, Long. 167-33 W

Sunset: Time 1946 Position: Lat. 23-07 N, Long. 164-49 W

Miles travelled from 0000 hours to sunrise = 80

Miles travelled from sunrise to sunset = 160

Miles travelled from sunset to 2400 hours = 48

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0547	CELESTIAL	23-57N	167-41 W
2.	1200	RADAR	23 36 N	166-20 W
3.	2000	LOTRAN	23 06 N	164 46 W
4.				
5.				

Hourly Positions:

Time Latitude Longitude <sup>4 SP</sup> Wind Dir. <sup>CLOUD</sup> Wind Sp. <sup>4 HT</sup> Wave Dir. <sup>TEMP</sup> Wave Hgt.

0100							
0200	24-22 N	168-28 W					
0300							
0400	24-14 N	168-07 W					
0500							
0600	23-55 N	167-37 W	090 11	5	090 2-4	76	77
0700	6	30					
0800	23-57 N	167-23 W					
0900	49	05					
1000	23-42 N	166 47 W					
1100	39	34					
1200	23-36 N	166-20 W	085 10	3	090 2-4	82	77
1300	32	08					
1400	23-28 N	165-55 W					
1500							
1600	23-18 N	165-26 W					
1700							
✓ 1800	23-14 N	165-10 W	085 8	3	090 2-4	80	77
1900							
2000	23-06 N	164-46 W					
2100							
2200	22-58 N	164-30 W					
2300							
✓ 2400	22-51 N	163-56 W	060 10	4	050 2-4	76	77



Date 15 JUNE Ship LT 2086 ( ) Cruise No. \_\_\_\_\_

Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0549 Position: Lat. 21-10 N, Long. 158-07

Sunset: Time \_\_\_\_\_ Position: Lat. \_\_\_\_\_, Long. \_\_\_\_\_

Miles travelled from 0000 hours to sunrise = 54

Miles travelled from sunrise to sunset = \_\_\_\_\_

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
-------------	-------------	----------	-----------

1.

2.

3.

4.

5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200	21-20 N	158-36 W				
0300						
0400	21-13 N	158-18 W				
0500						
0600	21-12 N	158-05 W				
0700						
0800	PEARL	HANBOW				
0900						
1000						
1100						
1200						
1300						
1400						
1500						
1600						
1700						
1800						
1900						
2000						
2100						
2200						
2300						
2400						



2086  
23 May

53  
15  
68

Sooty tern

58

16

74

WT Shear.

72

16

88

RFB

3 ~~2~~

3

C. Noddy

8

6

14

Pom Jaeger.

4

2

6

Bulwer

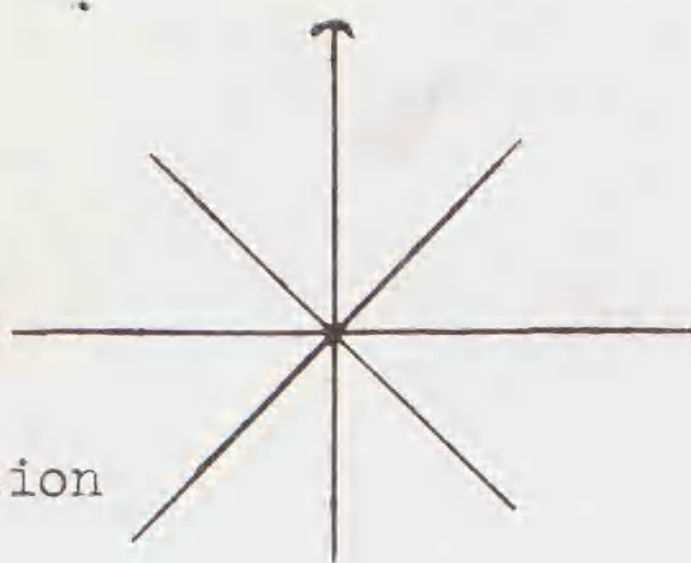
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1  
186

6.00



Ship  
Direction



LT 2086

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

B. DeLong

D. Bunker

Date 23 May 1967

Pg. #

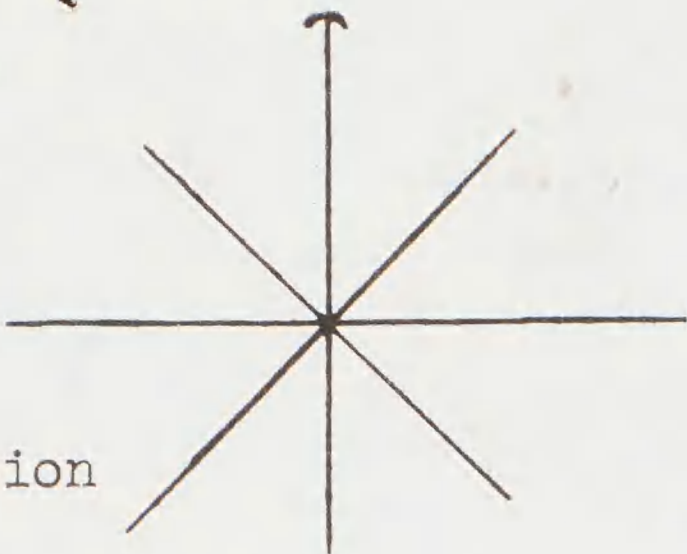
SPECIMEN

or

TIME SPECIES # DIR. BAND NO. REMARKS

	1430					open obs. - start beyond pearl break water
TF	1435	Sooty Tern	20 <sup>+</sup> ✓	E		
TF	1445	"	20✓	E		
	1447	Shearwater?	1✓	⊙		
	1454	Wedge T	1✓	⊙		
	1456	WTS	1✓	⊙		dark
	1457	Sooty	2✓	E		
	1458	"	5✓	E		
	1459	WTS	1✓	B		light phase
	1500	Sooty	2✓	E		
	1501	Red F. Booby	1✓	E		ad
F	1503	WTS	15✓	E		
		RFB	1✓	E		ad.
	1504	C. Noddy	2✓	E		
	1505	Pom. J.	1✓	E		
	1506	WTS	4✓	⊙		
	1507	WTS	1✓	⊙		Light
	1510	ST	2✓	E		
	1512	RFB	1✓	E		light - ad
	1513	WTS	1✓	E		"
	1514	CN	1✓	E		
	1515	WTS	3✓	⊙		light
	1520	WTS	1✓	⊙		"
	1524	WTS	2✓	⊙		light
	1525	ST	1✓	E		
	1527	WTS	2✓	⊙		light
	1529	Pom. J.	1✓	E		
	1530	WTS	1✓	⊙		light
	1532	"	1✓	⊙		lt.
	1537	"	1✓	⊙		"
	1539	CN	3✓	E		
F	1540	Pom. J.	2✓	E		
		ST	5✓	E		
F	1541	WTS	30 <sup>+</sup> ✓	⊙		distant
	1542	CN	1✓	E		
	1543	WTS	1✓	E		lt.
	1545	WTS	1✓	⊙		"
	1546	CN	1✓	E		
	1550	WTS	1✓	⊙		lt.
	1551	ST	1✓	E		
	1558	WTS	1✓	⊙		lt.
	1600	WTS	2✓	⊙		4





Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

B. DeLong

D. Borckhalter

Date 23 May 1967  
Pg. # 2

SPECIMEN  
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1615	Pom J	1 ✓	E		molt flight feathers
1620	WTS	1	⊙		lt.
1621	WTS	2	⊙		dk, lt.
1630	ST	1 ✓	⊙		
1631	Pom J	1 ✓	⊙		on H <sub>2</sub> O - some molt on remiges
1635	CN	1 ✓	E		
1637	WTS	1	⊙		lt.
1641	WTS	1	"		lt.
1645	ST ✓	15 <sup>+</sup>			
<del>1645</del>	WTS	10			
	CN	5 ✓			
1657	WTS	1	⊙		lt.
1700	Bulwers Petrel	1	818		
1900	Close up		S.S.		



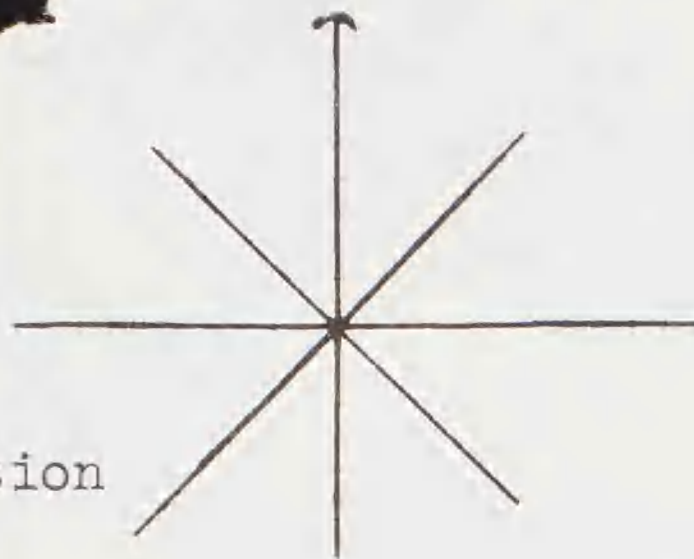
BFA -		2		2 ✓		4 ✓
Large Pterodroma	1					1 ✓
Bulwer's Pet	11	9	3	12 ✓	14	49 ✓
						3 ✓
Grey-b. Tern	3					
W-t Shearwater	47	215	12	25 ✓ <del>27</del>	39	338 ✓
						1 ✓
Jaeger	1					
						43 ✓
Sooty Tern	# 13	27	1	<del>2</del>		
						46 ✓
White Tern	11	4	21	3	7	
						8 ✓
RF Booby	1	5	2			
BFA						
Brown Noddy		2	3	2		7 ✓
						7 ✓
Great Frigate		2	3	2		
Shear Pet		2	260	101		363 ✓
CI Shear						1 ✓
						1 ✓
W.R.S.P.	<del>88</del>	<del>267</del>	<del>306</del>		1	
					2	
Storm Pet						2 ✓
					<u>63</u>	<u>874</u>

2086

24 May



Ship  
Direction



LT 2086

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

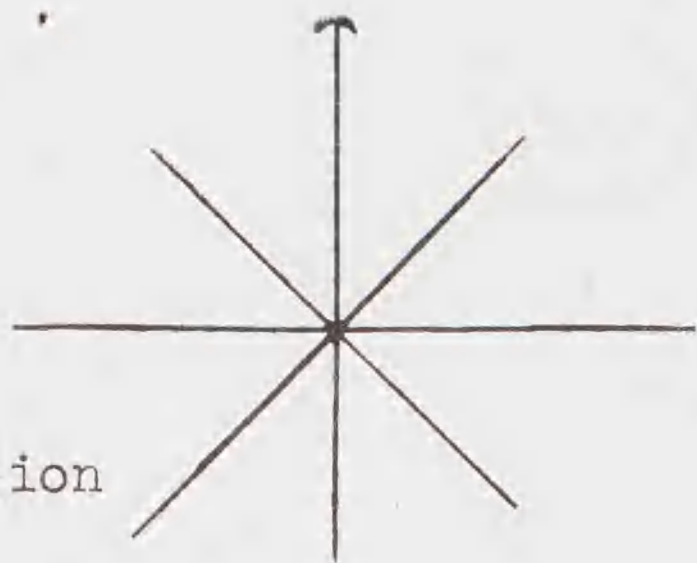
Date 24 May 1967  
Pg. # 1

SPECIMEN  
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0740					Begin obs.
0745	Long Pterod	1 ✓	N		
0750	<del>Petrel</del>	1 ✓			Little Sooty & long peak on Bulwer's.
0805	Y.B. Tern	2 ✓	W		
0810	GBT	1 ✓	W		
0812	Bulwer's Sooty	1 ✓	W		
0817	WTS	15+ ✓	W		10k, rest lit.
0820	Sooty Bul	1	W		
0825	WTS	5 ✓	W		
0826	Fairy Tern	4 ✓	W		lt.
0830	WTS	3 ✓	W		
0832	<del>Sooty S. Bul</del>	1 ✓	W		
0837	WTS Bul	1 ✓	W		lt.
0838	Sooty S.P.	1 ✓	W		
0843	WTS	1 ✓	W		lt.
0845	WTS	1 ✓	W		lt.
0850	Jaeger	1 ✓	W		
0855	Sooty Tern	2 ✓	W		
0900	WTS	11 ✓	W		lt.
	Sooty S.P.	11 ✓	W		
0905	WTS	1 ✓	W		lt.
0906	S.T.	1 ✓	W		
0911	Bul/SBP	1 ✓	W		
0915	WTS	1 ✓	W		
0923	Sooty S.P.	1	W		
0925	WTS	1 ✓	W		lt.
0926	Fairy T.	1 ✓	W		
0928	WTS	1 ✓			lt.
0935	W	1 ✓			
0939	RFB	1 ✓			lt. P.L. 5 Ad.
0940	Bul.	2 ✓	W		
0945	+ Sooty S.P.	1 ✓	W		lt.
	WTS	6 ✓			
	F. Tern	6 ✓			
	Sooty Tern	10 ✓			



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

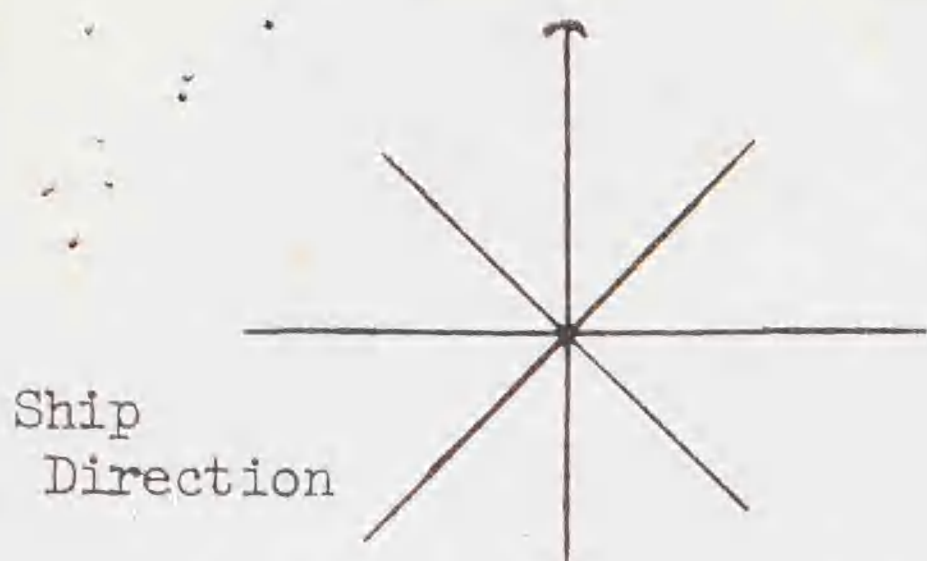
Date 24 May 1967  
Pg. # 2 J

SPECIMEN  
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0950	WTS	1 ✓	8		Lt.
0951	<del>Sooty SP Bul</del>	1 ✓	8		
EF 0955	WTS	200 ± ✓	8		
	ST	25 ± ✓			
0958	RFB	2 ✓	on Az		S. Ad.
0959	<del>Pl. shear/pet</del>	1 ✓	72		
1000	WTS	1 ✓	8		Lt.
1005	<del>Sooty SP Bul</del>	1 ✓	8		
1006	WTS	1 ✓	8		Lt.
1008	SSP Bul	1 ✓	8		
1015	F. Tern	1 ✓	8		
1016	SSP Bul	1 ✓	8		
1020	SSP Bul	2 ✓	8		
1022	F. Tern	1 ✓	8		
1025	BFA	1 ✓	Follow		
1027	ST	2 ✓	8		
1032	WTS	1 ✓	8		Lt
1033	<del>SSP Bul</del>	1 ✓	8		
1035	F. Tern	1 ✓	8		
1040	WTS	1 ✓	8		
1045	<del>SSP Bul</del>	1 ✓	8		Lt.
EF 1110	Br. Voodoo	2 ✓	8		Feeding
	WTS	3 ✓			Lt
	RFB	3 ✓			2 Ad; 1 imm (Lt Ph.)
	RF	1 ✓			
1125	<del>Striped Bul</del>	1 ✓			Bul was on Sooty Sp.
1128	White Tern	1 ✓	SW		
1130	WTS	1 ✓	8		Lt.
1140	BFA	1 ✓	E		Large all black - fresh.
1141	Shear	1 ✓	E		
1150	WTS	6 ✓	E		5 Lt. 1 DK.
1155	Shear	1 ✓			

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Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

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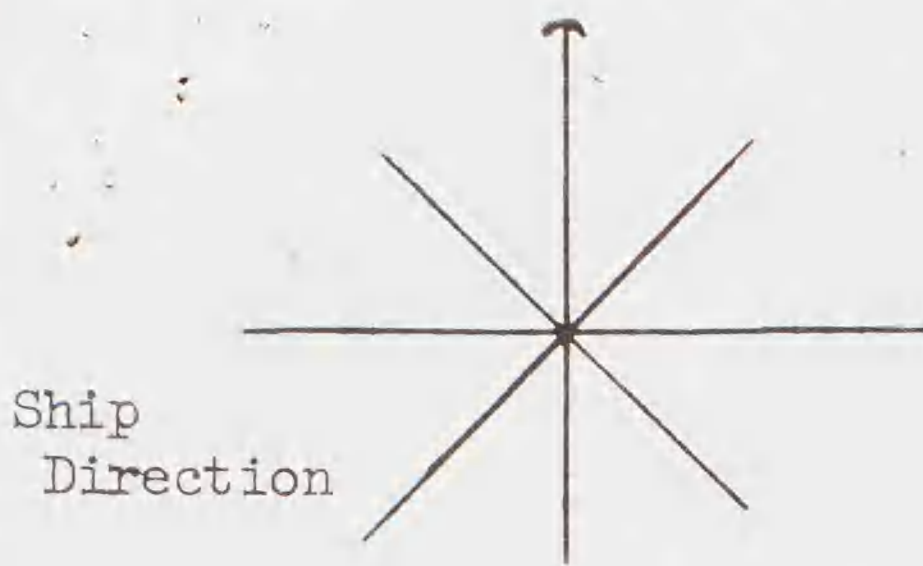
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Date 24 May 1967  
Pg.# 30

SPECIMEN  
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1200	WTS	3 ✓	80		LT.
1203	F. Tern	1 ✓	80		
1205	"	1 ✓	80		
1208	"	2 ✓	80		
1218	BR	2 ✓	80		
1220	Br Noddy	2 ✓			
1225	WTS	2 ✓			chased by frigate
FF 1232	<del>Shear/pets</del> F. Tern	ca. 250 ± 50 5 ✓	NE		LT.
	<del>Sooty</del>				
1235	F. Tern	3 ✓	80		
1240	"	1 ✓	80		
1243	"	1 ✓	80		
1250	Sooty T.	1 ✓	80		
1251	WTS	1 ✓	80		LT.
1258	F. Tern	1 ✓	80		
1258	<del>S-SP Bul</del>	1 ✓	80		
1259	F. Tern	1 ✓	80		
1300	WTS	1 ✓			LT.
1301	F. Tern	2 ✓	80		
1303	<del>S-SP Bul</del>	1 ✓	80		
FR 1317	G. Frigate	1 ✓			
	RFB	2 ✓			
	Shear/pets	10 ± ✓			
1320	F. Tern	1 ✓	80		
1322	"	1 ✓	80		
1323	C. Noddy	1 ✓	80		
1325	F. Tern	1 ✓	80		
1340	WTS	1 ✓	80		LT.
1350	<del>S-SP Bul</del>	1 ✓	80		Sooty or Bulwer
1351	W. Tern	1 ✓	80		can close
1410	WT Shear	1 ✓	80		SP K.
1425	CI Shear	1 ✓	80		
1431	WT Shear	1 ✓	80		LT.
1445	"	2 ✓			"





Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

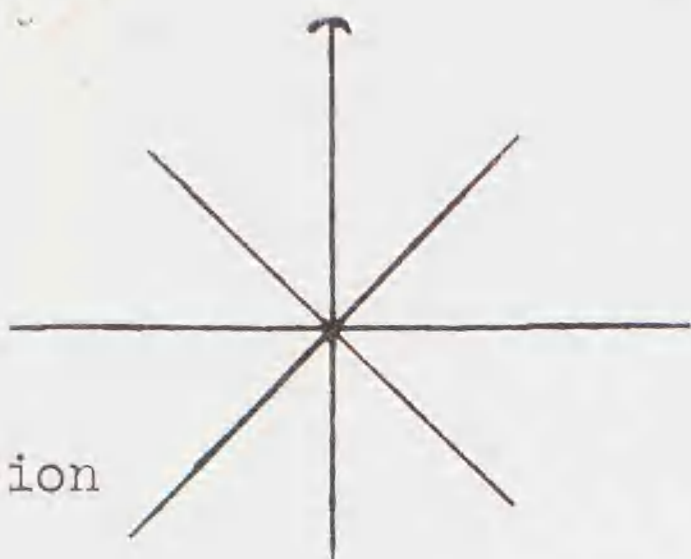
Date 24 May 1967  
Pg. # 4

SPECIMEN  
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1505	S. Tern	1 ✓	N		
1509	WTS	1 ✓	⊙		Lt.
1510	SSP Bul	2 ✓	⊙		
1520	WTS	1 ✓	⊙		Lt.
1530	WTS	1 ✓	⊙		Lt.
1544	BFA	1 ✓	⊙		
1546	WTS	3 ✓	⊙		Lt.
1548	"	2 ✓	⊙		Lt.
1549	"	1 ✓	⊙		"
1554	"	2 ✓	⊙		Lt.
FF 1555	G. Frigate	1 ✓	⊙		
	Birds - shear/pets 100-50				prob. wedgies
1559	Shear/pet	1 ✓	⊙		
1604	WTS	1 ✓	⊙		Lt.
1606	BFA	1 ✓	⊙		
1612	WTS	1 ✓	⊙		Lt.
1620	C. Noddy	1 ✓	⊙		
1624	WTS	2 ✓	⊙		Lt.
1625	SSP Bul	1 ✓	⊙		
1626	" Bul	2 ✓	⊙		
1628	"	1 ✓	⊙		
1630	WTS	1 ✓	⊙		Lt.
1634	SSP Bul	1 ✓	⊙		
1640	" Bul	2 ✓	⊙		
1642	WTS	1 ✓	⊙		Lt.
1644	WTS	2 ✓	⊙		Lt.
1645	SSP Bul	1 ✓	⊙		
1646	WTS	1 ✓	⊙		Lt.
1647	WTS	1 ✓	⊙		Lt.
1648	SSP Bul	1 ✓	⊙		
1649	F. Tern	1 ✓	⊙		
1650	"	1 ✓	⊙		
1651	WTS	2 ✓	⊙		Lt.
1654	WTS	1 ✓	⊙		
1655	WTS	1 ✓	⊙		Lt.
1657	"	1 ✓			Lt.
1658	"	1 ✓			Lt.
1710	Sooty tern	1 ✓	E		
1714	Fairy tern	1 ✓	W		
1716	WTS	1 ✓	⊙		Lt.



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

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Date 24 May 1967  
Pg. # 5

SPECIMEN  
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1617	SSP Bul	1 ✓	3		
1623	WRSP	1 ✓	3		
FF 1629	F. Tern	1 ✓			
	SSP Bul	10 ± ✓			
7	WTS	30 ± ✓			no. Dk. phase noticed
1630	SSP Bul	1 ✓	3		
1732	WTS	1 ✓			LT
1742	<del>Storm Pet</del>	1 ✓			
1747	W-T Sh.	1 ✓			Sooty or bulweri.
1805	Wt Sh.	1 ✓	E		
1820	WTS	1 ✓	SW		LT
1825	WTS	1 ✓	SW		LT
1830	Sooty > Pet.	2 ✓	SW		LT
1835	WTS	1 ✓	E		LT
1838	W. Tern	6 ✓	SW		
1850	Storm Pet.	1 ✓			small (Larcker's-sized bird) all black.
1853	LT Sh.	1 ✓	SW		LT
1854	"	1 ✓	SW		LT
1857	<del>Storm Pet.</del>	1 ✓			Sooty or bulweri

(13)



25 May

Long Sals	1 + 1	2 ✓	-1
BFA	12 + 4	16 ✓	
LWS Lems	20 + 17 + 28	65 ✓	
Storm Pet	1	1 ✓	
Skua Pet	3	3 ✓	
Bulwer's	3 + 6	9 ✓	(-1)
Sooty Tern	9 + 18 + 83	110 ✓	-3
Comm. Noddy	10	10 ✓	
Fairy Tern	1 + 2 + 1	4 ✓	
H. Frigate	2 + 1	3 ✓	(1)
RFB	-1	1 ✓	
<u>Terns</u>	<u>50 +</u>	<u>50</u>	
CIS Lems	-1	1 ✓	
Terns sp.	50	50 ✓	
Noddy sp	1	1 ✓	
booby sp	1	1 ✓	
		<u>327</u>	

2086

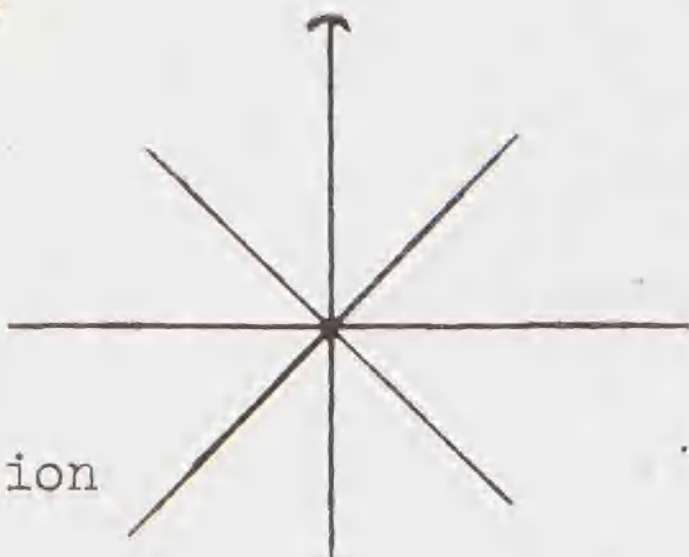
25 May 1967



LT 2086

OBSERVERS:

Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

SPECIMEN  
or

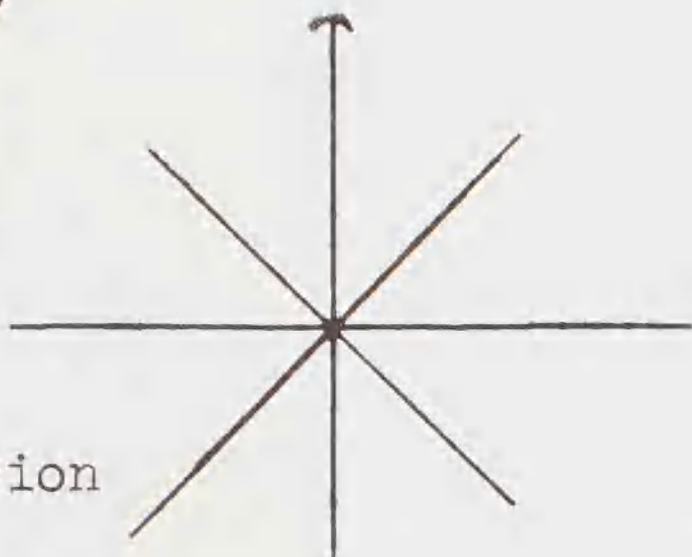
Date 25 May 1967  
Pg. # 1

TIME SPECIES # DIR. BAND NO. REMARKS

0630					begin obs
0631	BFA	3 ✓	☉		
0635	WTS	1 ✓	☉		Lt.
0636	Sooty Tern	1 ✓	☉		
0637	C. Noddy	1 ✓	☉		
0640	F. Tern	1 ✓	☉		
0646	ST	2 ✓	E		
0649	SP	1 ✓	E		
0650	Shear/pet	1 ✓	☉		
0652	G. Frigate	1 ✓	NE		AP
0654	C. Noddy	3 ✓	NE		
0656	ST	1 ✓	E		
0702	ST	1 ✓	E		
0704	G. Frigate	1 ✓	E		AP
0715	Sooty tern	1 ✓	SW		
0716	WTS shear	1 ✓	E		Lt.
0718	Laysan Alb.	1 ✓	SW		
0722	<del>Sooty S. Pet</del> Bul	1 ✓	SW		
0725	Wedge tail	2 ✓	SW		Lt.
0735	Shear/Pet	2 ✓	☉		
0740	BFA	6 ✓			Follow 87 = 9
0742	WTS	1 ✓	☉		Lt.
0742	ST	1 ✓	☉		
0745	WTS	2 ✓	☉		Lt.
0747	C. Noddy	5 ✓	NE		
0750	Laysan A	1	☉		
0752	WTS	2 ✓	☉		Lt.
0755	WTS	3 ✓	☉		Lt.
0800	WTS	2 ✓	☉		Lt.
0805	<del>SSP. Bul</del>	1 ✓	☉		
0806	WTS	1 ✓	☉		Lt.
0807	C. Nod.	1 ✓	☉		
0808	WTS	2 ✓	☉		Lt.
0809	ST	1 ✓	☉		
0810	BFA	3 ✓			now 6
0813	<del>SSP. Bul</del>	1 ✓	☉		
0814	WTS	2 ✓	☉		Lt.
0816	WTS	1 ✓	☉		Lt.
0819	ST	1 ✓	W		



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

B. DeLong

D. Burckhalter

Date 25 May 1967  
Pg. # 2

SPECIMEN

or

TIME SPECIES # DIR. BAND NO. REMARKS

0824 WTS 3 ✓ ② Lt.

0826 WTS 2 ✓ ② Lt.

0829 WTS 2 ✓ ② Lt.

0830 ST 3 ✓ ②

0835 Laysan A. 1 ✓ now 2

0837 ~~ssp Bul~~ 1 ✓ ②

0842 G. Frigate 1 ✓ ② A♀

0845

0900 Pacific B-n close str 1/2 mile from French Frigate Shoals

~~Delphinoides~~ ca. 50 w/young round wakes of bow for 5 min.

1640 resume str. 7 1/2 off F.F.S.

1645 BFA 4 ✓ Following

1647 F. Tern 1 ✓ ②

1648 WTS 1 ✓ ② Lt.

1651 Bul 1 ✓ ②

1654 C. Nod 1 ②

1655 Bul 1 ✓ ②

1656 WTS 1 ✓ ② Lt.

1700 F. Tern 1 ✓ ②

1701 ST 2 ✓ E

1704 WTS 1 ✓ ② Lt.

1705 ST 1 ✓ E

1707 WTS 1 ✓ ② Lt.

1711 WTS 1 ✓ ② Lt.

1713 ST 1 ✓ S

1718 ST 1 ✓ S

1719 Bul 1 ✓ ②

1722 WTS 1 ✓ ② Lt.

1724 Bul 1 ✓ ②

1840 Sooty T 3 ✓ N

1845 Wedge T 1 ✓ N LP

1848 Sooty T 1 ✓ N

1800 Wedge T 1 ✓ SE

1803 Sooty T 4 ✓ E Adelt

1804 " 3 ✓ NE "

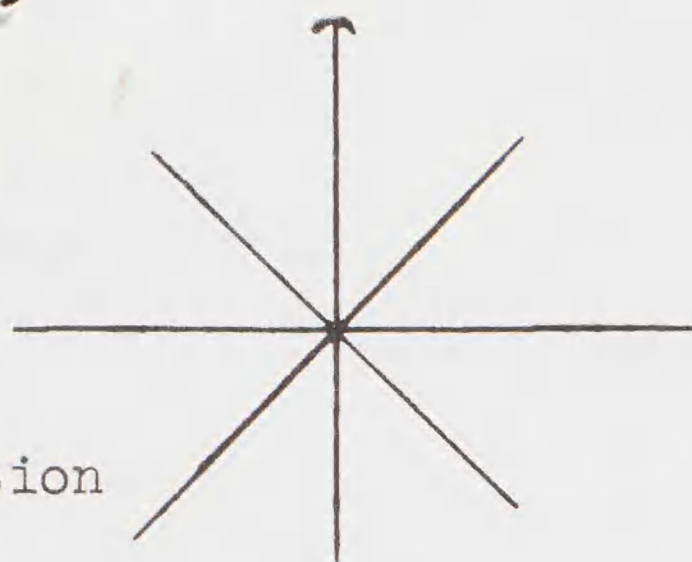
1810 Bulwers 1 ✓ ②

1824 RFB. 1 ✓ Lt. Ad

1835 WTS 2 ✓ ② Lt



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

R. DeLong  
D. Burkhalter  
D. Stadel

Date 25 May '67  
Pg.# 3

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

	1850	Sooty tern	2 ✓	E		Ad.
	1853	"	4 ✓	E		"
	1855	"	1 ✓	E		"
	1858	L + SL	2 ✓	SEA		
	1903	"	1 ✓	SEA		L + PL
	1910	CF Shear	1 ✓	SEA		
F	1911	Terns	50+			5 mile ahead.
	1920	Noddy sp	1 ✓	N		
	1921	Sooty tern	1 ✓	S		
FF	1928	Sooty tern	75 ± 10			L +
		L + SL	25 ± 4			
		b. booby sp	1 ✓			
	1931	L. tern	1 ✓			
	1941	SS				



26 May

BFA -1 -3

4 ✓

83

75

2

W-TSL -11 -64 -176 -49

300 ✓

162

N-B Tern 6 -1

7 ✓

Sooty Tern 28 -162 -308 -22

521 ✓

Fairy Tern 4 -2 -3

9 ✓

Tern sp -2

2 ✓

BFB -15

15 ✓

HF -4 -4

8 ✓

Bn. Booby -1

1 ✓

RTTB -1

1 ✓

B N. Noddy 4

4 ✓

Bn. Noddy 2 -26 -1

29 ✓

Bulwer's pet 2 -1 -1

4 ✓

Jacques -1

1 ✓

906

2086 26 May



LT 2086

OBSERVERS:

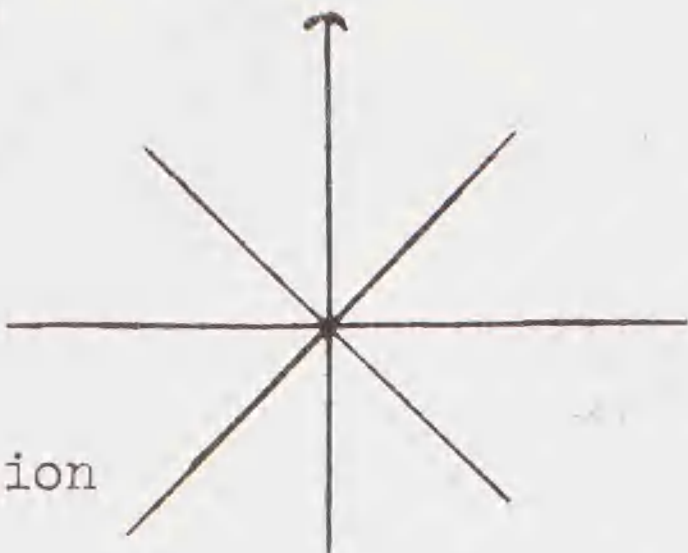
R. DeLong

D. Burchhalter

P. Stadel

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

Ship  
Direction



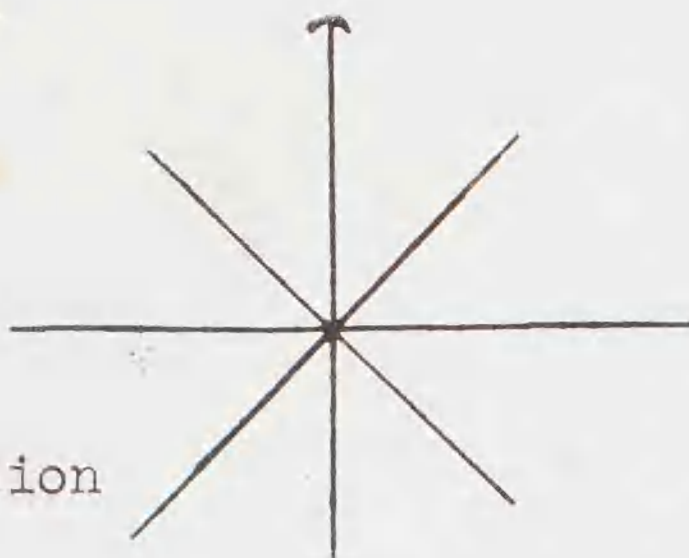
SPECIMEN  
or

Date 26 May 1967  
Pg. # 1

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0620					Begin Watch
0623	Wedgetail	1✓	NE		
0628	"	1✓	NE		"
0632	"	1✓	NE		"
0640	"	1✓	"		LP
0645	"	1✓	"		"
0648	"	1✓	"		"
0659	Tern	1✓	E		Probably Sooty
0702	Gray-b Tern	1✓	E		
0708	BFB	2✓	E		Adult
0715	Tern	1✓	W		
0725	W-B Tern	2✓	N		
0726	W-Frig.	2✓	SW		Ad.
0728	WTS	1✓			Lt.
0730	ST	2✓			
0735	WTS	2✓			
0740	BFB	2✓			ad
0741	ST	1✓			
0742	BFB	4✓			3rd, 1 SA
0742	BB	1✓			
0743	G-Frigate	2✓			
0745	BBB	1✓			ad
0746	Sooty T.	25+✓			
0747	GB-Tern	1✓			
0748	RTTB	1✓			
0749	Bl-gray Nod	1✓			
0750	G-B Tern	1✓			
0753	BFB	2✓			
0754	RTTB	1✓			
0755	BFB	4✓			
0756	F-Tern	4✓			
0757	Bl-gray N.	3✓			
0758	G-B Tern	1✓			imm.
0800					close obs. 1 1/2 mi off Gardner Pinnacles
1200					reopen obs. - underway
1200	BFA	1✓	Follow.		
1218	WTS	1✓			Lt.
1220	C. Nod.	2			
1220	WTS	1✓			Lt.



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

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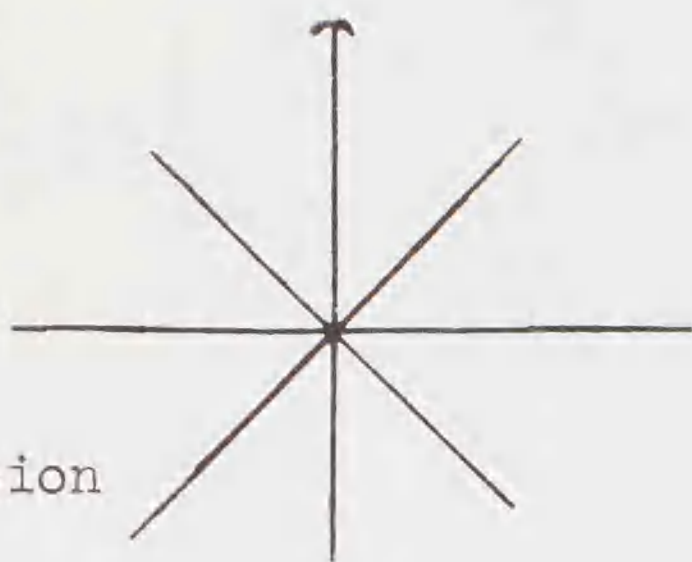
Date 26 May 1967  
Pg.# 2

SPECIMEN  
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1258	G-B Tern	1 ✓	8		
1310	C Noddy	1 ✓	N		
1322	Wedgetail	1 ✓	N		LP
1337	Wedge tail	1 ✓	88		Lt.
1350	"	2 ✓	88		LT
1350	Wedgetail	1 ✓	88		Lt.
1400	Frigate	2 ✓	888		Circling high - long fast.
1408	Wedgetail	1 ✓	888		LT
1450	"	1 ✓	888		LT
FF 1454	Wedgetails	35 ± 5			
	Sooty tern	80 ± 10			
1500	C. Noddy	10 ± 4		now 2	
1508	Lt shear	2 ✓			
1510	C. Noddies	15 ± 4			
1509	Sooty tern	2 ✓			
1512	Wedgetail	1 ✓	W		
1518	"	2 ✓	888		
1519	Sooty tern	1 ✓	888		
FF 1520	Sooty tern	75 ± 20			
	Fairy tern	2 ✓			
	Wedgetail	15 ± 3			
1528	Frigate	2 ✓	888		
1530	Bulwer's	1 ✓	888		
1535	Sooty tern	2 ✓	W		Lt.
1552	WTS	1 ✓	88		
1554	WTS	1 ✓	88		Lt
1600	Bulwer's	1 ✓			
<del>FF 1617</del>	<del>Sooty T</del>	<del>150</del>	<del>E</del>		<del>Adulthood</del>
	<del>Wedgetail</del>	<del>70</del>			<del>LP</del>



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

D.L. Stadel

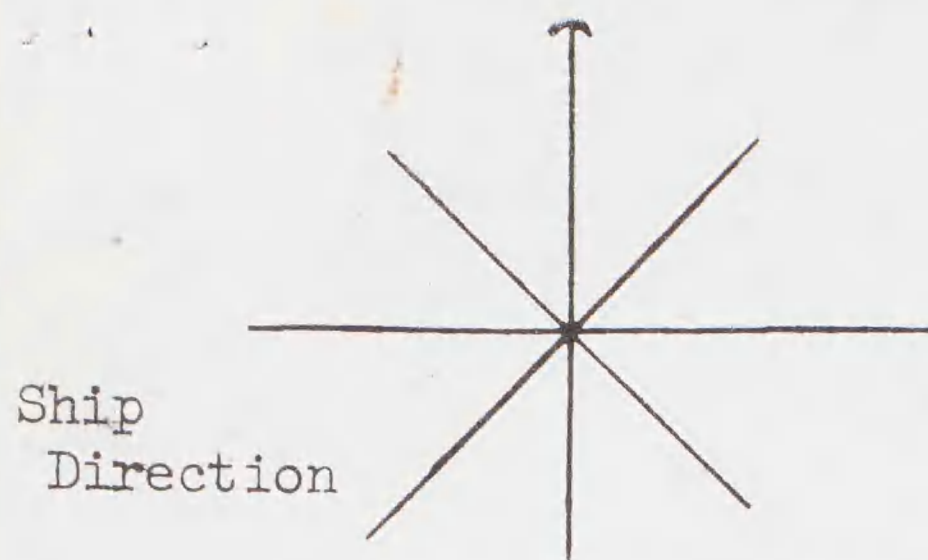
Date 26 May  
Pg. # 3

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

TF	1620	Sooty T Wedgetail	230 ✓ 110 ✓			Large flock in two groups. Terns we seen diving to water & WT lit on water but no feeding was observed. Appeared to be a broken up feeding flock.
	1630	Wedgetail	1 ✓	N		
	1635	C. Noddy	1 ✓	⊙		
	1640	WTS	1 ✓	⊙		Lt.
	1645	ST	1 ✓	⊙		
	1646	Wedgetail	2 ✓	E		LP
TF	1647		7 ✓	E		
	1650	WTS	1 ✓	⊙		Lt.
	1655	"	1 ✓	⊙		Lt.
	1658	"	1 ✓	⊙		
	1659	"	4 ✓	⊙		Lt.
	1710	Jaeger	1 ✓	⊙		On Sub Adult, Int phase
FF	1720	Sooty T Wedgetail	70 ± 40 ±	⊙		Adults. WT all Light Phase. No large fish breaking surface
	1735	Fairy T WTS	1 ✓	⊙		Lt.
	1736	ST	4 ✓	E		
	1737	WTS	1 ✓	⊙		Lt.
	1750	BFA			now 5	
	1755	WTS	1 ✓	⊙		Lt.
	1759	WTS	4 ✓	⊙		Lt.
	1800	ST	1 ✓	⊙		Lt.
	1805	WTS	1 ✓	⊙		Lt.
	1810	Sooty tern	2 ✓	E		Ad.
	1820	Bulwer's P.	1 ✓	N		
	1826	BFA	2 ✓			Total of 4 following also as there has been for most of day.





SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

*DeLong*  
*Frank H. B.*  
*S. L. L.*

Date *26 May '67*  
Pg. # *4*

SPECIMEN  
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1830	W. + Sh. tern.	1 ✓	SE		Lt. Phase.
1835	"	2 ✓	SE		"
FF 1843	Sooty tern	20 ± 5 ✓			Ad.
	Wedgetails	30 ± 5 ✓			Lt
	Fairy tern	3 ✓			
1855	W. + Sh. tern.	2 ✓	SE		Lt
1858	"	1 ✓	N		Lt
1900	Sooty tern	1 ✓	N		Ad.
1901	W. + Sh. tern	3 ✓	S		Lt Ph.
1915	Sooty T	1 ✓	N		
1935	Sooty T	1 ✓	N		
"	Wedgetail	1 ✓	N		LP
1940	Bulwers	1 ✓	N		
1946	Wedgetail	1 ✓	N		LP
"	"	1 ✓	W		"
1953	"	1 ✓	N		"
"	"	1 ✓	S		"
2000	"	1 ✓	W		"
"	"	1 ✓	W		"
2001	"	1 ✓	W		"
2003	"	1 ✓	W		"
2005	"	1 ✓	W		"



27 May

BFA - 5 - 4 - 1

10 ✓

Lay A - 1 - 2 - 3

6 ✓

Wt Stem - 21 - 52 - 27 - 166 - 22

298 ✓

Stem sp. - 3

3 ✓

BFP - 3 - 5 - 13 - 13 - 4

38 ✓

Sooty sp. 2 - 61 - 1

64 ✓

BFB - 1 - 1

2 ✓

Bulwer - 1 - 2 - 2 - 3

8 ✓

MBT - - 2

2 ✓

Fairy Tern - - - 2

2 ✓

Bs Noddy 15

15 ✓

Gr Frig - 2

2 ✓

Small Pterodroma 1

1 ✓

SL / sub 6

6 ✓

RTTB - 1

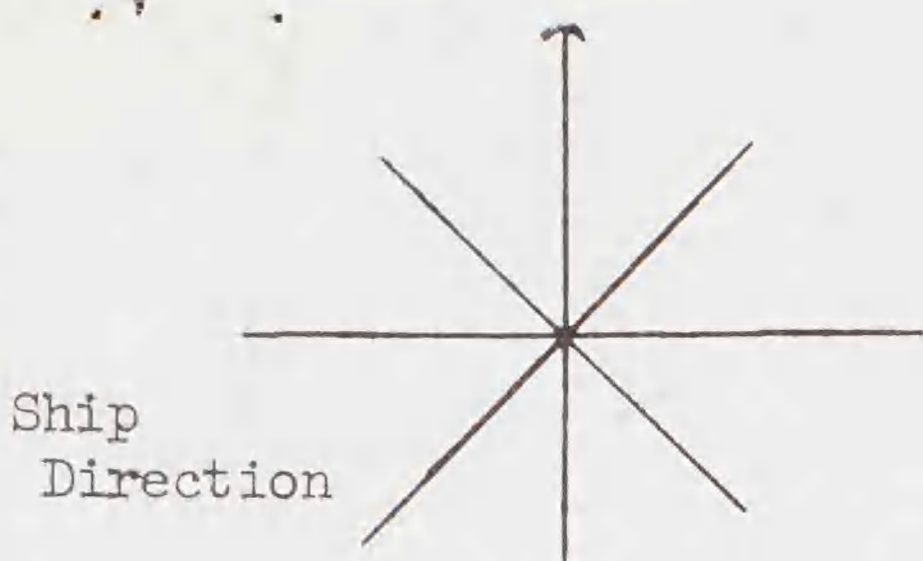
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2086





LT 2086

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

DeLong, Stadel  
Borchert

Date 27 May '67  
Pg. # 1

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

0630 --- begin obs.

0630 WtSLan 1 ✓ SW

LT PL.

0637 " 1 ✓ SW

"

0640

0642 WtSLan 1 ✓

Sunrise

0643 Long San Alb. 1 ✓ SW

LT.

1 following ship

0644 B.F. Albat. 2 ✓

total of 2 following ship

0650

Today The 2087 is 4 miles to  
our starboard and the 2081 has been  
dropped one mile off the aft port  
quarter. This is reducing possible  
affect on birds seen.

0702 BFA 3 ✓

total of 5 flying about ship.

0704 WtSL. 1 ✓ SW

LT.

0708 Starna sp. 3 ✓ N

0710 WtSL. 4 ✓ NE

LT.

0711 " 4 ✓ "

"

0712 " 4 ✓ "

"

0713 " 4 ✓ "

"

0714 Bonin Is. 1 ✓ N

" " 1 ✓ N

0716 Laysan A. 1 all

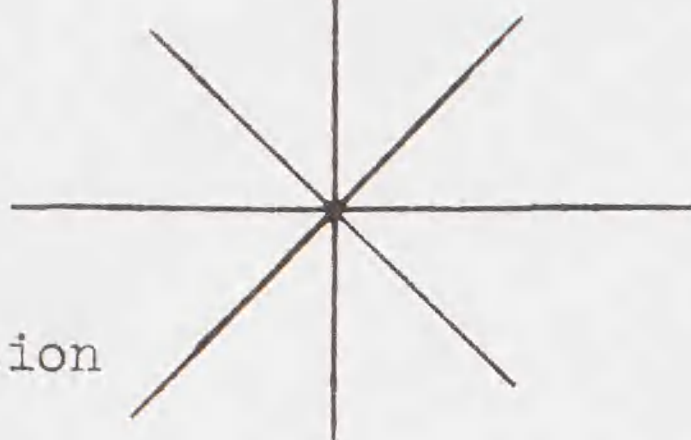
0718 Bonin 1 ✓ N

" Wedgetail 1 ✓ N

0719 Sooty 2 ✓ N



285

Ship  
Direction
 SMITHSONIAN INSTITUTION  
 DIVISION OF BIRDS  
 AT SEA DAILY LOG - E

OBSERVERS:

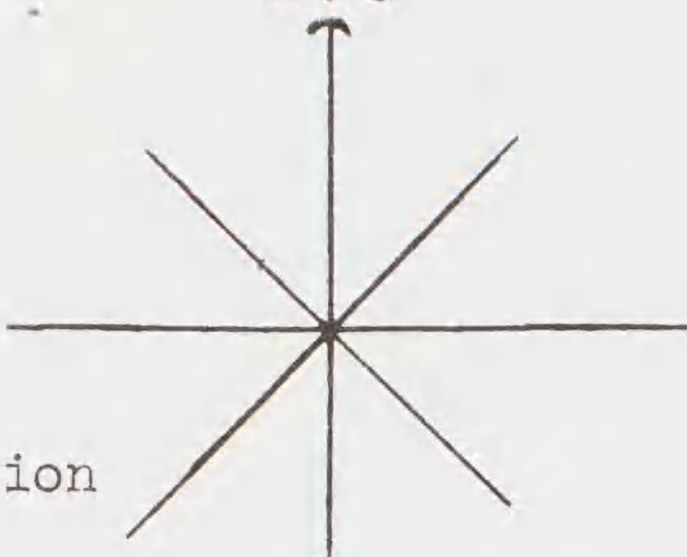
DL StadelDate 27 May  
Pg. # 2SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

0719	BFB	1✓	N		Adult
0720	Bonin Is	1✓	N		
"	Wedgetail	3✓	N		LP
0721	"	4✓	N		
0722	Laysan A	2✓	el		
0723	Wedgetail	3✓	N		
0725	"	2✓	N		
0728	"	2✓	N		
"	"	3✓	N		
0730	Bonin	1✓	⊙		
0732	Wedgetail	3✓	N		LP
0735	"	2✓	N		"
0737	Laysan	2	N		
"	Wedgetail	4✓	N		LP
0739	"	4✓	N		
0741	Bonin	1✓	N		
0743	Wedgetail	4✓	N		
44	"	2✓	N		
0747	"	2✓	N		
48	Bonin	1✓	N		
0749	Wedgetail	2✓	N		
0752	"	2✓	N		
"	Bonin	1✓	N		
0757	Wedgetail	3✓	N		
158	Bulwers	1	N		
1159	Wedgetail	3✓			
0808	"	4✓	N		



280

Ship  
Direction
 SMITHSONIAN INSTITUTION  
 DIVISION OF BIRDS  
 AT SEA DAILY LOG - E

OBSERVERS:

 DL Stadel  
 D Burkhalter

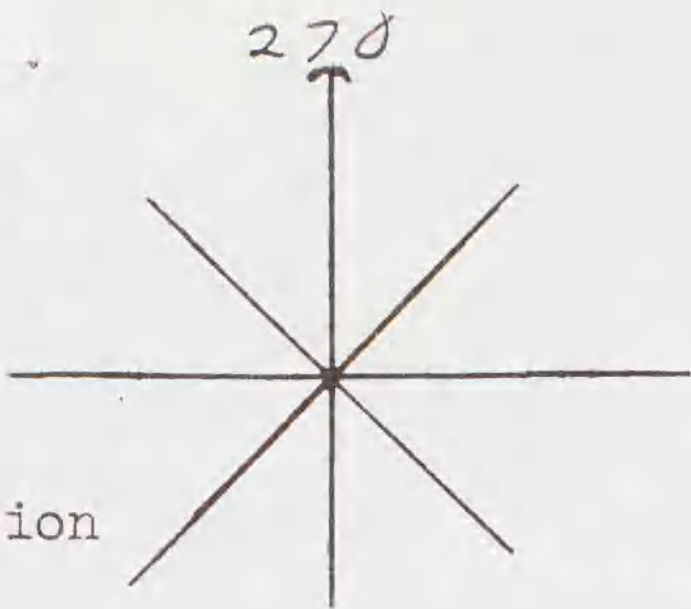
 Date 27 May  
 Pg.# 3

 SPECIMEN  
 or

TIME SPECIES # DIR. BAND NO. REMARKS

0808	Wedgetail	3 ✓	N		Lt.
0812	"	3 ✓	N		
0813	Bonin	1 ✓	S		
0814	Wedgetail	2 ✓	N		
0815	"	3 ✓	N		
0816	BFA	3	00		
0825	Bonin	1 ✓	0		
0828	"	1 ✓	0		
0833	WTS	1 ✓	0		Lt.
0835	Bul.	1 ✓	0		now 3
0836	Laysan	1 ✓	0		
0841	BIP	1 ✓	0		
0842	WTS	1 ✓	0		Lt.
0843	GB Tern	2 ✓	0		ad.
0846	WTS	1 ✓	0		Lt.
0850	BFA	4 ✓			now 9
0854	Bul	1 ✓	0		
0859	WTS	2 ✓	0		Lt.
0901	BIP	1 ✓	0		
0903	WTS	1 ✓	0		Lt.
0905	BIP	1 ✓	0		
0906	WTS	1 ✓	0		Lt.
0908	WTS	1 ✓	0		Lt.
0910	WTS	1 ✓	0		Lt.
0913	BIP	1 ✓	0		
0914	BIP	1 ✓	0		
0922	BIP	1 ✓	0		
0935	WTS	1 ✓	0		Lt.
0942	WTS	1 ✓	0		Lt.
0945	BFB	1 ✓	F		ad.
0948	WTS	1 ✓	0		Lt.
0952	WTS	1 ✓	0		Lt.
0954	"	1 ✓	S		Lt.
0957	"	1 ✓	S		"
1009	Bonin	1 ✓	N		
1012	"	1 ✓	S		
1013	"	1 ✓	S		
1014	Wedgetail	1 ✓	S		
1018	Bonin Is	1 ✓	N		





SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

DL Stadel

R. Rehorny

Date 27 May 67

Pg. # 4

SPECIMEN

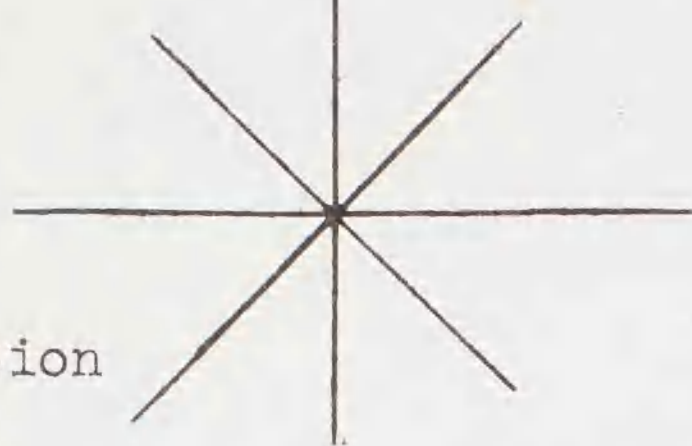
or

TIME SPECIES # DIR. BAND NO. REMARKS

	1022	Bonin	2 ✓	05		
	1023	"	1 ✓	N		
	1024	Wedgetail	2 ✓	00		lt
	1025	"	1 ✓	N		"
	1100	Leysan Albatross	1 ✓	N		not following
	1104	B. F. P.	1	S		"
	1113	W-T Shear	1 ✓	S		LT
	1117	Sooty tern	3 ✓	SW		
	1128	Bonin Isl.	2 ✓	S		
	1135	Bulwer's Pet	1 ✓	SW		
FR	1140	W-T Shear	150 ± 20			
		Sooty tern	50 ± 10			
		B. F. Pet	5 ✓			
		Fairy tern	2 ✓			
		C. Noddy	15 ✓			
		Hr. Fairy	2 ✓			Ad. ♂
		Leysan alb.	2 ✓			
		B. F. Alb.	1 ✓			
	1155	WTS	1 ✓	0		LT.
	1158	BIP	1 ✓	0		
	1203	BIP	1 ✓	0		
	1205	WTS	1 ✓	0		LT.
	1210	Bul	1 ✓	0		
	1212	ST	3 ✓	0		ads.
	1217	ST	2 ✓	0		ads.
	1219	ST	1 ✓	N		ads.
	1220	ST	2 ✓	0		ads.
	1230	WTS	1 ✓	0		LT.
	1233	WTS	2 ✓	0		LT.
	1237	WTS	2 ✓	0		LT.
	1239	WTS	1 ✓	0		LT.
	1250	WTS	3 ✓	0		LT.
	1255	WTS	1 ✓	0		LT.
	1300	B. F. Pet	1 ✓	SW		pink behind eye?



270

Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

DeLong  
Burkholder  
Stadel

Date 27 May  
Pg.# 5

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

1320	Pterodroma small.	1 ✓	S		
1325	shear pet	2 ✓	SE		Bonin or Jedyie.
1352	W-t shear.	1 ✓			LT.
1410	B-I Petrel	1 ✓	SE		
1420	Bonin Is	1 ✓	N		
1500	"	1 ✓	S		
1520	WT. Sh	1 ✓	N		LT
1550	"	1 ✓	N		LT
1555	Bul	1 ✓	SE		
1607	WTS	1 ✓	SE		LT.
1608	Bul	1 ✓	SE		
1618	WTS	1 ✓	SE		LT.
1623	WTS	1 ✓	SE		
1624	ST	1 ✓	S		ad.
1630	WTS	1 ✓	SE		LT
1631	Shear/pet	3 ✓	E		
1633	Shear/pet	1 ✓	SE		
1644	Bul.	1 ✓	SE		
1708	RTTB	1 ✓	E		
1716	BIP	1 ✓	SE		
1718	WTS	1 ✓	SE		LT.
1720	WTS	1 ✓	SE		LT.
1723	WTS	1 ✓	SE		LT.
1740	WTS	1 ✓	N		
1744					20 ± BFA following
1752	WTS	1 ✓	SE		
1809	"	2 ✓	SE		
1830	WTS	2 ✓	SE		LT.
1843	"	1 ✓	SE		"
1903	"	1 ✓	SE		"
1915	"	1 ✓	SE		"
1928	"	2 ✓	S		"
1953	"	1 ✓	SE		
2010					Stop



28 May 1962

86

LA - 1

BFA - 3

ST 21

WTS 8

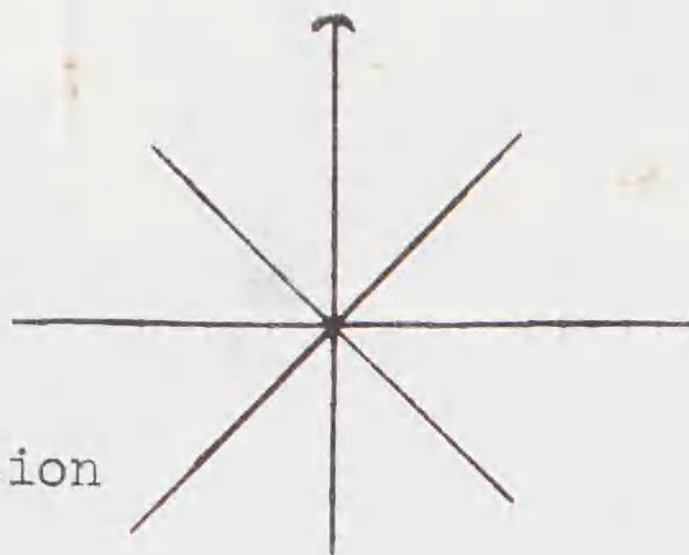
RT 11

44

15 20 30



Ship  
Direction



LT 2086

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

R. DeLong  
D. Burchhalter  
P. Stadel

Date 28 May 1967  
Pg. # 1

SPECIMEN  
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0645					Begin
0645	BFA	1 ✓	⊙		
0652	ST	1 ✓	E		ad.
0658	ST	1 ✓	E		ad.
0700	Laysan A	1 ✓	⊙		
0706	WTS	1 ✓	⊙		Lt.
0709	WTS	1 ✓	⊙		Lt.
0710	ST	1 ✓	⊙		ad.
0712	WTS	1 ✓	⊙		Lt.
0713	ST	1 ✓	E		ad.
0716	WTS	1 ✓	⊙		Lt.
TF 0718	Roddy Turnstone	5 ✓	E		<del>ad. ad. ad. ad. ad.</del> } did not appear to be in breed. plum.
0719	WTS	3 ✓	⊙		Lt.
TF 0720	R. Turnstone	6 ✓	E		<del>ad. ad. ad. ad. ad. ad.</del>
0721	ST	1 ✓	⊙		ad.
0724	<del>WTS</del> ST	1 ✓	⊙		ad.
0725	ST	2 ✓	⊙		ad.
0730	ST	1 ✓	E		ad.
0732	ST	2 ✓	⊙		ad.
0734	ST	4 ✓	⊙		ad.
0735	WTS	1 ✓	⊙		Lt.
0737	ST	3 ✓	⊙		ad.
0738	ST	4 ✓	E		ad.
0740					cease obs. ca 10 mi from SE Island
					birds all over of all kinds

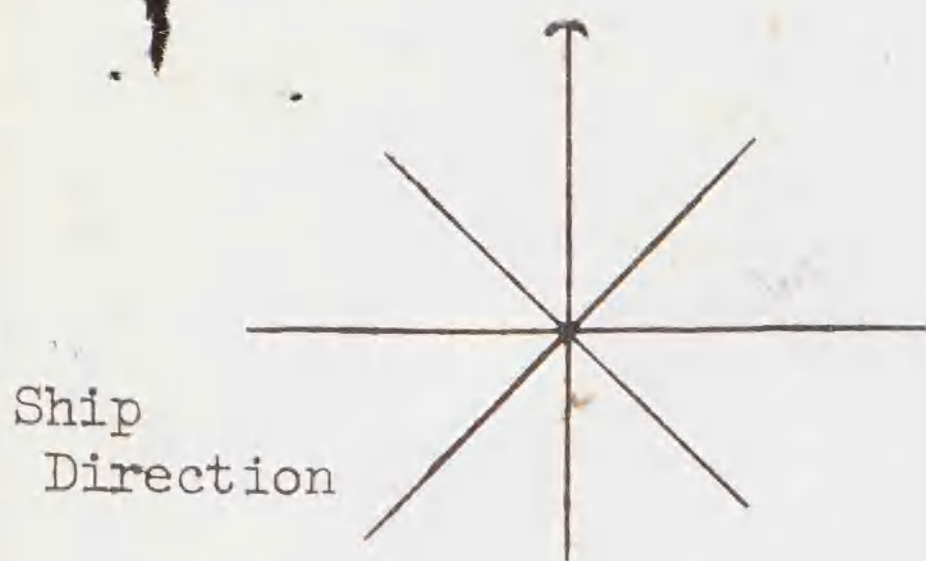


12/12/2012

LA	2	2	(1)	2 ✓
BFA	2 - 4	6	(6)	6 ✓
WTS	45 - 212 - 49 - 18	324	+ 57 =	381 ✓
BIP	2 - 5	7		7 ✓
Pygmy	51 - 56 - 3	110	+ 99 =	209 ✓
MTT	6	6	+ 1 =	7 ✓
Fingert	3 - 1	4		4 ✓
Bulwers	1 - 1	2		2 ✓
Br Noddy	1	1		1 ✓
MF	2 - 1	3	+ 1 =	4 ✓
Jan Plover	1	1		1 ✓
RTTB		466		1 ✓
RFB				3 ✓
Ruddy Turnstone				1 ✓
Hut				2 ✓
				<hr/> 631 <hr/>

Total  
daily 86,587





LT 2086

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

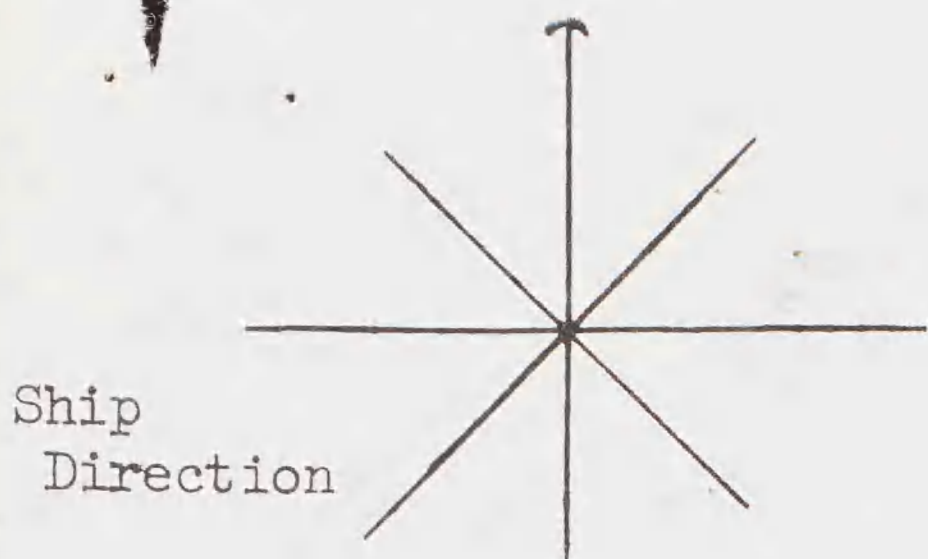
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Date 12 June 1967  
Pg. # 1

SPECIMEN  
or

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	1245					begin obs.
	1245	WTS	2✓	⊙		Lt
	1247	"	3✓	⊙		Lt.
	1248	Laysan A.	2✓	⊙		
	1249	BFA	2✓	⊙		
TF	1250	Sooty T.	8✓	W		ad.
	1251	BIP	1✓	⊙		
	1300	WTS	2✓	⊙		Lt.
	1304	WTS	3✓	⊙		Lt.
	1306	"	4✓	⊙		Lt
	1308	"	3✓	⊙		Lt
	1310	ST	4✓	W		ad
	1311	BIP	1✓	⊙		
	1315	GB Tern	1✓	E		
	1316	WTS	3✓	⊙		Lt.
TF	1320	ST	5✓	W		ad
	1323	Fairy T.	1✓	⊙		
	1325	"	2✓	⊙		
	1327	GB Tern	1✓	⊙		
	1330	WTS	3✓	⊙		Lt.
	1345	WTS	1✓	⊙		Lt.
	1352	"	4✓	⊙		Lt.
	1405	ST	2✓	W		ad.
	1406	Bul.	1✓	⊙		
	1407	WTS	1✓	⊙		Lt.
	1420	"	3✓	⊙		Lt.
	1424	"	2✓	⊙		Lt.
	1427	"	3✓	⊙		"
	1434	"	3✓	⊙		"
	1440	GBT	3✓	E		
	1455	WTS	1✓	⊙		Lt.
	1504	GBT	1✓	⊙		
	1505	WTS	1✓	⊙		Lt.
	1511	ST	2✓	W		ad.
	1515	WTS	1✓	⊙		Lt.
	1517	ST	3✓	W		ad.
TF	1522	HF	2✓			
		Sooty tern	25✓	⊙		Lt
		Wedge tailed shear	2✓			
	1525	Sooty tern	2✓	N		
	1526	Br. Noddy	1✓	N		





Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

Baird, Walter  
De Long  
Stadel

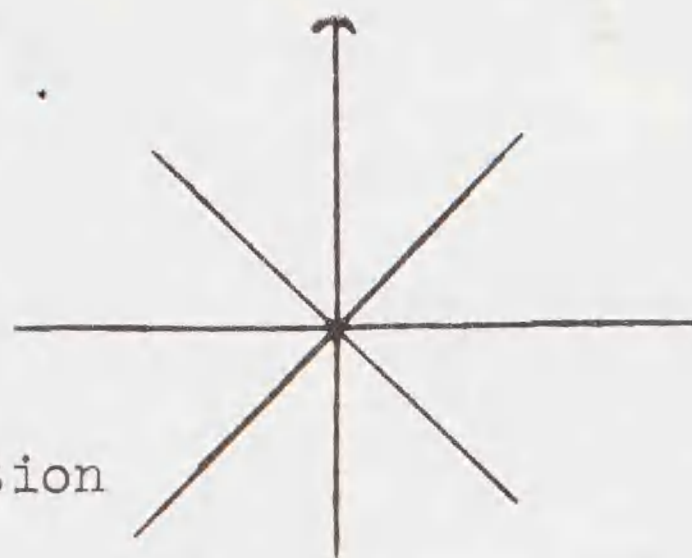
Date 12 June 1967  
Pg. # 2

SPECIMEN  
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1535	sooty tern	2 ✓	W		
1536	WTS tern	1 ✓	N		LT
1540	Fairy tern	1 ✓	SE		
1545	WTS tern	2 ✓	SE		LT
1550	WTS tern	5 ✓	SE		LT
1555	WTS	1 ✓	SW		LT
1555	"	1 ✓	"		"
"	"	1 ✓	"		"
"	"	1 ✓	"		"
1558	"	1 ✓	"		"
1558	Sooty T	2 ✓	NW		Adults.
1602	Frigate	1 ✓	SE		LT
1605	Wedge T	1 ✓	SW		"
"	"	1 ✓	SW		"
1605	"	1 ✓	NW		"
1610	"	1 ✓	SW		"
1615	"	1 ✓	SW		"
1618	"	1 ✓	W		"
1620	"	1 ✓	SW		"
23	"	1 ✓	"		"
25	"	1 ✓	"		"
28	"	1 ✓	"		"
1630	Sooty T	1 ✓	NW		
FP 1638	WTS	180 ±	SE		Feeding . WTS landing on water
	Sooty T	50 ±			
1642	WTS	3 ✓	SE		
1647	"	4 ✓	"		
1650	"	2 ✓	"		
1655	"	1 ✓	"		
1655	Sooty T	1 ✓	NW		
1657	Juan Fernandez	1 ✓	SW		Shear/pet



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

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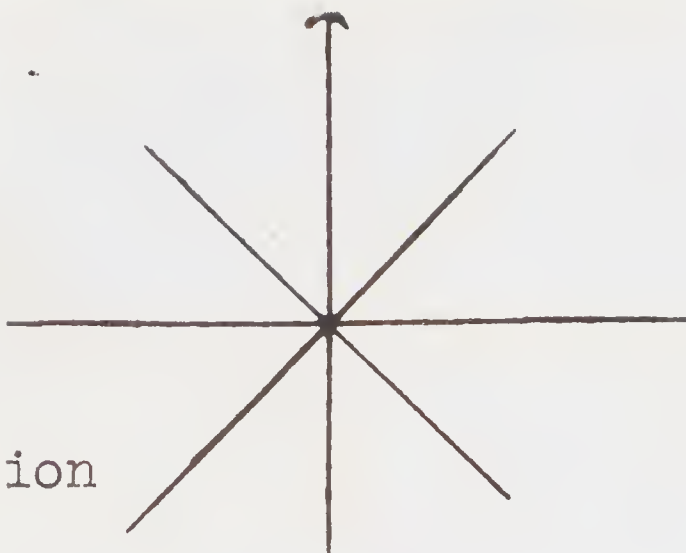
Date 12 June  
Pg.# 3

SPECIMEN  
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1700	WTS	1✓	20		Lt
1702	"	2✓	"		
1705	"	3✓	"		
1707	"	1✓	"		
1710	"	2✓	"		
1715	"	2✓	"		
1717	"	1✓	"		
1720	"	1✓	"		
1725	"	1✓	"		
1730	"	3✓	"		
1733	"	2✓	"		
1737	"	1✓	"		
1740	"	3✓	"		
1745	"	1✓	"		
1745	Bulwers	1✓	S		
1800	WTS	1✓	8		Lt.
1810	"	2✓	"		"
1812	"	1✓	"		"
1816	"	1✓	"		"
1821	"	1✓	"		"
1822	ST	2✓	W		ad.
1825	BIP	2✓			
	WTS - Lt.	4✓			} on H <sub>2</sub> O & see chow in the H <sub>2</sub> O = feeding
	BFA	4✓			
1829	WTS	2✓	8		Lt
1835	"	2✓	8		
1839	BIP	1✓	8		
1840	"	1✓	8		
1843	WTS	1✓	8		Lt.
1845	BIP	1✓	8		
1847	WTS	2✓	8		Lt.
1852	"	2✓	"		"
1856	"	1✓	"		"
1900	"	3✓	"		"
1901	Sooty tern	1✓	W		
1910	WTS	1✓	8		Lt



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

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\_\_\_\_\_

SPECIMEN  
or

Date 12 June  
Pg. # 34

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1907	WTSK.	5 ✓	88		L t
1910	"	2 ✓	"		"
FA 1920	"	7 ✓	"		"
1940	"	2 ✓	"		"
1950	"	2 ✓	"		"
2009	-				55



13 Jan

BFA - 1 - 1	2	2 ✓
WtSL - 15 - 13	28 + 10 =	38 ✓
Bulwer - 1 - 1	2 + 3	5 ✓
Sooty tern - 21 - 34	55 + 22 =	77 ✓
RTTB - 4	4	4 ✓
G-B Tern - 2 - 5	7 + 2	9 ✓
Br. Noddy - 5	5	5 ✓
MF ↑ 1	1 + 1	2 ✓
Skua 1	1 + 1	2 ✓
BFB 1	1 + 2	3 ✓
BEP 1	1	1 ✓
	<hr/> 107	

Newells

1 ✓

RFB

2 ✓ Ad. LA

HNT

1

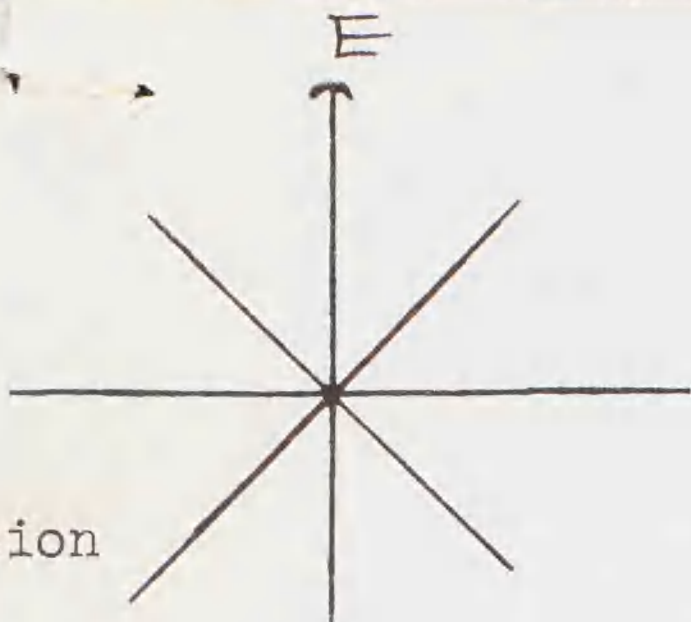
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152

day total  
86887



Ship  
Direction



LT 2086  
SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

Burckhalter  
DeLong  
Stadel

Date 13 June 1967  
Pg. # 1

SPECIMEN

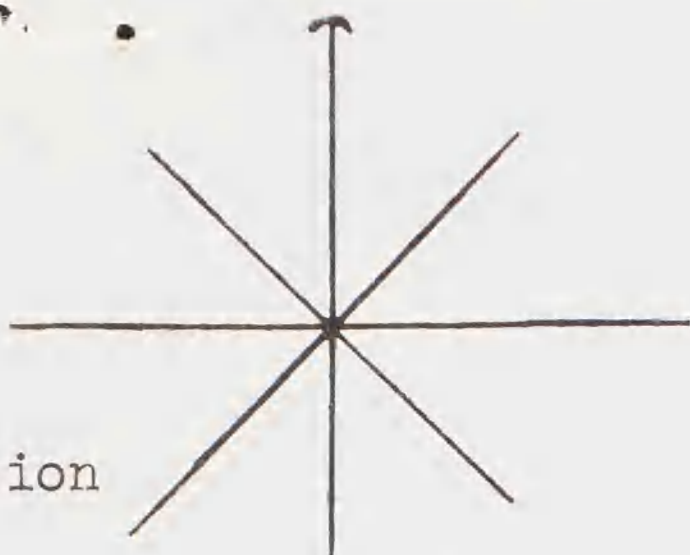
or

TIME SPECIES # DIR. BAND NO. REMARKS

0730					Bogue obs.
0740	Sooty T.	3 ✓	E		ad.
0748	"	2 ✓	E		"
0749	WTS	2 ✓	⊙		
0800	WTS	1 ✓	⊙		LT.
0805	"	1 ✓	⊙		"
0806	ST	1 ✓	⊙		
0810	RTTB	1 ✓	⊙		ad
0814	ST	1 ✓	⊙		ad.
0844	Sooty T.	1 ✓	SW		"
0845	"	1 ✓	"		"
0845	Bulwers	1 ✓	S		
0846	RTTB	2 ✓	E		Ad
"	BEA	1 ✓	⊙		
0855	WTS	1 ✓	N		LT
0917	Sooty T	1 ✓	E		Ad
0921	WTS	1 ✓	⊙		LT
0927	Sooty T	1 ✓	⊙		Ad
0935	"	1 ✓	⊙		"
"	RTTB	1 ✓	N		Ad
0937	Sooty T	1 ✓	⊙		Ad
"	WTS	1 ✓	⊙		LT
0943	WTS	3 ✓	N		"
0950	Sooty T	1 ✓	⊙		Ad
0955	WTS	1 ✓	N		LT
1020	"	1 ✓	N		"
1025	"	2 ✓	⊙		"
1030	H-b Tern	2 ✓	⊙		ad.
1040	Sooty tern	2 ✓	E		
1041	Wedge-tail	1 ✓	⊙		LT
1048	Sooty tern	3 ✓	NE		Ad - toward F.F.
1055	"	2 ✓	"		"



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date 13 June  
Pg. # 2

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

	1105	BFA	1 ✓	SE		Seen near feeding flock and came to ship
FF	1108	Sooty tern	25 ✓			
		B-B. tern	5 ✓			
		WTS tern	4 ✓			
	1115	WTS tern	1 ✓	N		
	1117	B. Noddy	1 ✓	NE		
	1122	WTS	1 ✓	SE		LT
	1125	BFA	1 ✓	SE		
	1127	WTS	1 ✓	SE		LT
	1130	"	2 ✓	"		"
	1137	"	1 ✓	"		"
	1147	"	2 ✓	"		"
	1150	"	1 ✓	"		"
	1155	B. Noddy	4 ✓	N		
	1157	ST	4 ✓	N		ad
	1158	Bulwer's	1 ✓	SE		
	1201	ST	1 ✓	W		ad.
	1207	SKua	1 ✓	N		Reliability of 2. We are a beam of La Perouse
	1211	Sooty tern	1 ✓	N		Reminds F.F. The bird matches only the description of the skua. It was all dark reflecting only the white in the wings
	1215	Sooty tern	2 ✓	N		
	1226	BFB	1 ✓	N		
	1231	BIP	1 ✓	SE		
	1256	ST	1 ✓	SE		ad.
	1300					as Is. Taken by the 2087



Date 14 JUNE Ship LT 2086 ( ) Cruise No.           

Organization                                  Recorder                                 

Sunrise: Time 0606 Position: Lat. 22°-24'N, Long. 163°45'W

Sunset: Time 1923 Position: Lat. 21°-39'N, Long. 159°-57'W

Miles travelled from 0000 hours to sunrise = 73

Miles travelled from sunrise to sunset = 159

Miles travelled from sunset to 2400 hours = 56

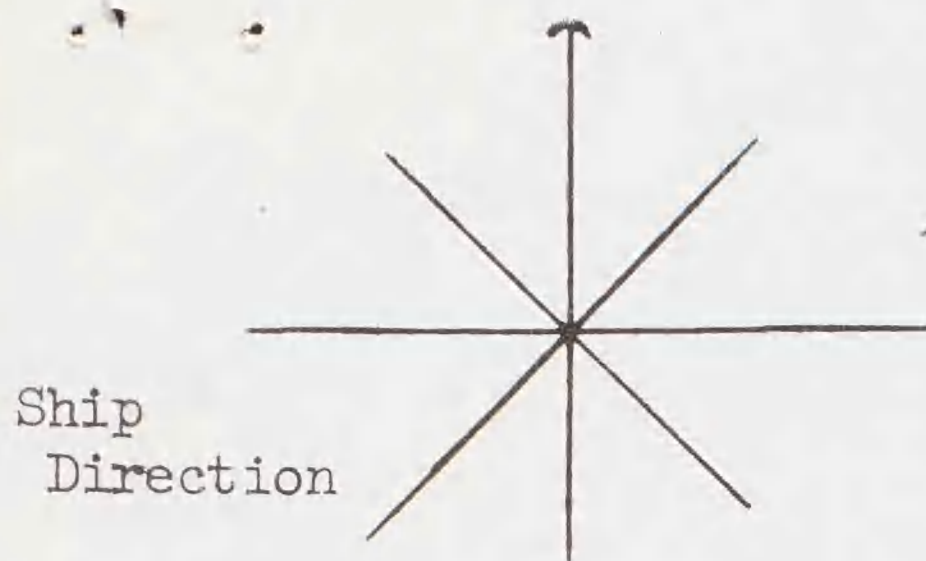
	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0800	LORAN	22-18N	162 23 W
2.	1000	LORAN	22 10 N	161 59 W
3.	1825	VISUAL	21-42N	160 11 W
4.				
5.				

Hourly Positions:

Time Latitude Longitude <sup>6 SP. CLOUD COVERAGE</sup> Wind Dir. <sup>6 HT</sup> Wind Sp. <sup>TEMP.</sup> Wave Dir. Wave Hgt.

						Air	Sea
0100							
0200	22-43N	163-30					
0300							
0400	22-35N	163-05					
0500							
0600	22-25N	162-48	CALM	4	085-12	76	
0700	22	36					
0800	22-18N	162 23 W					
0900	14	11					
1000	22-10N	161-59W					
1100	08	46					
1200	22-04N	161-33W	CALM	3	085 1-2	84	
1300	01	20					
1400	21-58N	161-08W					
1500							
1600	21-53N	160-41W					
1700							
1800	21-42N	160-15W	CALM	3	085-1-2	82	
1900							
2000	21-37N	159-51W					
2100							
2200	21-31N	159-25W					
2300							
2400	21-25N	159-01W	CALM	2			





Ship  
Direction

LT 2086

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

De Long, S. J. & S. J.  
Burkholder

Date 14 June  
Pg. # 1

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

0645 LT 1 ✓ LT beg to obs.

0645 LT 1 ✓ LT LT

0700 " 1 ✓ " "

0705 Whitern 1 ✓ W Travelling

0706 Shore  
frigate 1 ✓ GR A. ♀

0710 WTS 1 ✓ " LT

0717 " 1 ✓ RP "

0720 " 1 ✓ RP "

0720 Sooty T 1 ✓ N Ad

0725 Bulwer's Pet 1 ✓ SS

0726 Sooty T  
Ad 1 ✓ GR possible Sooty

0729 Sooty T 2 ✓ SS Ad.

0732 " 1 ✓ " "

0740 " 1 ✓ N "

0745 M-B Tern 1 ✓ E

0748 W-T Shear 1 ✓ ST LT

0758 M-B Tern 2 ✓ E Ad

0808 Fairy T 1 ✓ S

0812 M-B Tern 1 ✓ W Ad

0813 WTS 1 ✓ ST LT

0818 Bulwer's Pet 1 ✓ SS

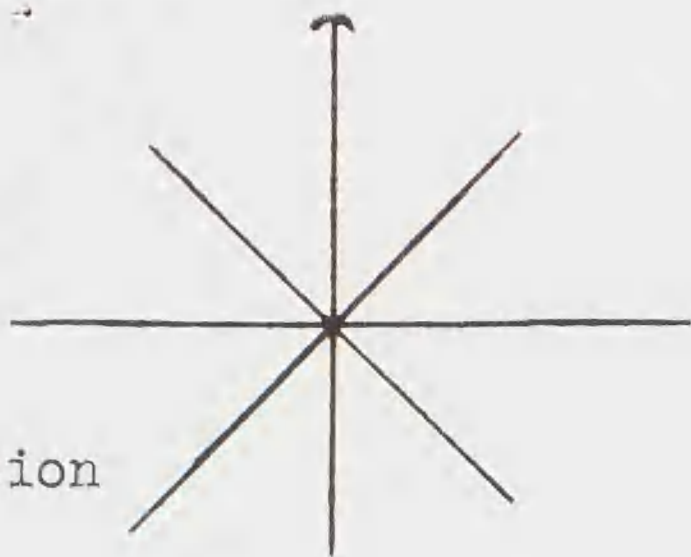
0820 Large  
Pterodroma 1 ✓ ST

0822 W-T Shear 1 ✓ ST heavily mottled upper surface. Shining white underwing  
but flight was most in discreet as it nearly flattened  
along surface - gliding at intervals. No other characteristic  
were noted.

0827 Sooty Tern 1 ✓ N Ad



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

Date 14 June 1967  
Pg. # 2

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

	0830	Bulwer's Pet	1 ✓	SW		
	0831	RF Booby	1 ✓	W		ad Lt Ph
	0840	Bulwer's Pet	1 ✓	SW		
	0842	WTS	1 ✓	SW		LT.
	0845	"	1 ✓	"		"
	0846	Noddy sp.	1 ✓	S		
	0847	WTS	1 ✓	SW		LT
	0855	Sterna sp.	1 ✓	SE		Flying high - travelling
	0858	Pterodroma	1 ✓	SW		
	0900	Sterna sp.	1 ✓	N		foraging in <u>lunar</u>
	0905	WTS	2 ✓	SW		
	0912	Bul	1 ✓	S		LT
	0916	"	1 ✓	S		
	0917	ST	1 ✓	S		ad.
	0919	Bul	1 ✓	S		
	0925	WTS	2 ✓	S		LT.
	0928	Bul	1 ✓	S		
	0933	Bul	1 ✓	S		
	0935	WTS	4 ✓	S		LT.
	0936	Bul	1 ✓	S		
TF	0937	C. Nod.	8 ✓	SE		
	0938	WTS	1 ✓	S		LT.
	0939	Bul	1 ✓	S		
	0941	"	2 ✓	S		
	0956	"	2 ✓	S		
	0958	WTS	1 ✓	S		LT.
	1000	ST	1 ✓	S		ad.
	1005	WTS	1 ✓	S		LT.
	1009	Bul	2 ✓	S		
	1010	GBT	1 ✓	E		ad.
	1017	WTS	1 ✓	S		LT.
	1045	WTS	1 ✓	SW		
	1050	"	1 ✓	SW		
	1055	"	1 ✓	W		
	1105	Common N	3 ✓	S		





Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

DeLong  
Barkhalter  
Stadel

Date 14 June  
Pg.# 3

SPECIMEN  
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1107	Bulwer's	1✓	NE		
1110	Fairy T	1✓	S		
1111	Bulwer's	1✓	S		
1125	Frigate	1✓	el		Adult ♀
1125	Sooty T	3✓	N		" "
FF 1130	Grey BT	38±	N		
<del>1130</del>	Wedgetail	10✓	el		
<del>1150</del>	Fairy T	2✓			
<del>1150</del>	BFB.	1✓			
<del>1150</del>	Shearwater				(Sooty / Slender B / Pale-foot)
	Sooty T	20±✓			
	Common N	25±✓			
	Haw NT.	5±✓			
1145	GBT.	1✓			Sitting on Coconut.
1215	WTS	1✓	3		Lt.
1223	Bul	1✓	3		
FF 1230	BFB	8✓			
	BFA	3✓			
	LA	1✓			
	WTS	25±✓			
	ST	10±✓			
1232	Bul	2✓	3		
1237	<del>Albatross</del>				F. Tern 1
1242	FT	1✓	3		
1257	Bul.	1✓	3		
1258	RFB	1✓	3		
1259	"	1✓	on H <sub>2</sub> O		
1300	"	1✓	"		
1301	WTS	1✓	0		Lt.
FF 1305	WTS	10±✓	3		Lt.
	RFB	8✓			6 ad 2 imm
	BB	1✓			ad
	C. Nod	4✓			
1310	ST	1✓	3		ad 2087 should take over now.
cease	Nbs				



Date 13 June 67 Ship LT-2087 ( ) Cruise No. \_\_\_\_\_

Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0626 Position: Lat. 24-00W, Long. 167-28W

Sunset: Time 1945 Position: Lat. 23-08, Long. 165-50W

Miles travelled from 0000 hours to sunrise = 76 mi.

Miles travelled from sunrise to sunset = 158

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
--	-------------	-------------	----------	-----------

1.

2.

3.

4.

5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200						
0300						
0400						
0500						
0600	24-01W	167-38W	095	7	100	3 Ft.
0700						
0800	24-07N	167-15W				
0900	24-07N	167-15W				
1000	24-07N	166-50W				
1100	24-07N	166-50W				
1200	23-10N	166-24W				
1300	23-30N	165-50W				
1400	23-30N	165-50W				
1500	23-19N	165-28W				
1600	23-10N	165-00W				
1700	23-04N	164-48W				
1800	23-00N	164-21W				
1900						
2000						
2100						
2200						
2300						
2400						



Date 14 JuneShip LT2087 ( )Cruise No. 19

Organization \_\_\_\_\_

Recorder \_\_\_\_\_

Sunrise: Time 0600Position: Lat. 22°30'N, Long. 162°50'WSunset: Time 1928Position: Lat. 21°39'N, Long. 160°06'WMiles travelled from 0000 hours to sunrise = 70

Miles travelled from sunrise to sunset = \_\_\_\_\_

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.			
2.			
3.			
4.			
5.			

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200	22-42N	163-36W				
0300						
0400						
0500						
0600	22-30N	162-50W				
0700						
0800	22-18N	162-17W				
0900						
1000	22-12N	161-58W				
1100						
1200	22-03N	161-38W				
1300	00	23				
1400	21-58	161-08W				
1500	55	160-56				
1600	21-52	160-44W				
1700	46	30	37			
1800	21-41	160-15W				
1900	21° 38'	160-08W				
2000	0					
2100						
2200						
2300						
2400						

70/43

$$\begin{array}{r} 1.5 \\ 43 \overline{) 670} \\ \underline{43} \\ 270 \end{array}$$

1.5

10 15

18

10

2

7.

43

$$\begin{array}{r} 22 \\ 3-70 \\ \underline{6} \end{array} \quad \begin{array}{r} 38 \\ 22 \end{array}$$

32



2087

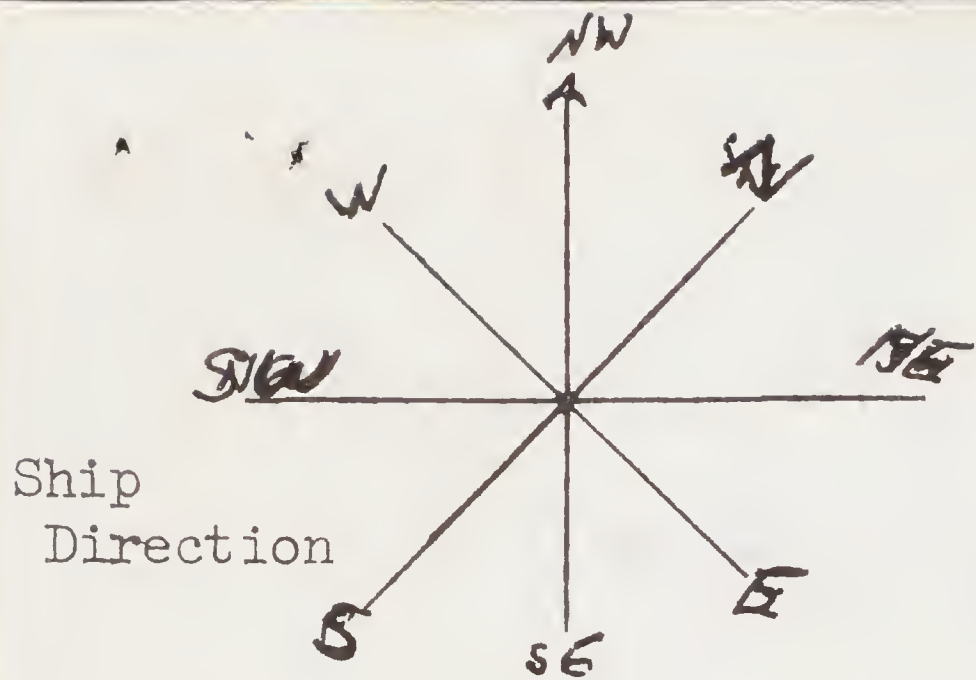
24 May

Bulwer's	6	11	10	10	9	1	47 ✓
Sooty Tern	89	40	6	12	12	4	152 ✓
Shear/Pet	2		1		1	1	5 ✓
WT SL	134	231	5	20	16	8	414 ✓
Newell	1	1		1	1		4 ✓
Fairy Tern	21	17	13	6	2	3	62 ✓
Tern sp.	41						41 ✓
C. Noddy	1				4		5 ✓
Great Frigate		1	2	1			4 ✓
X-I Shear		2					2 ✓
RF B		4	6	2			12 ✓
Antarctic Petrel			2				2 ✓
D-R Petrel			1				1 ✓
Sooty Shear			1	1			2 ✓
B-B Tern				1		1	2 ✓
BFA				1	2		3 ✓
BFB					1		1 ✓
Leach's Petrel					1		1 ✓

756

760





SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

SR-800 Toy  
0800-1000 Thompson  
1000-1200 J  
1200-1400 J  
1400-1600 J  
1600-SS

Date 24 MAY 1967  
Pg. # 1

SPECIMEN  
or

Diurnal

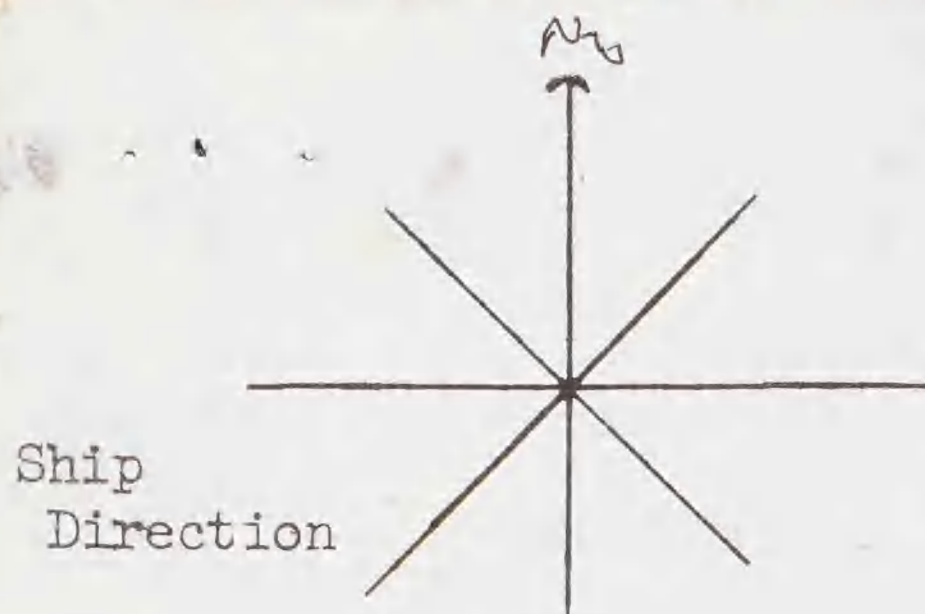
LT 2087

TIME SPECIES # DIR. BAND NO. REMARKS

	0609				SUNRISE open OBSERVATIONS
	0617	Bulwer's P.	1	⊙	
	0619	Sooty T.	2	SE	ADULTS
	0624	SHAY/Pet.	2	⊙	light below
	0625	W.T.S.	1	NE	light phase
	0626	Newell's	1	⊙	
	0630	Fairy T.	2	NE	
	0634	Sooty T.	1	E	adult
	0642	W.T.S.	1	SW	light phase
	0645	Tern sp.	1	NW	too distant to I.D. +
	0648	Common Noddy	1	NE	
FF	0652	W.T.S.	2	NE	light phase
	0655	W.T.S.	50±10	⊙	light phase
		Tern sp.	40-50	⊙	feeding
	0657	Sooty T.	1	NW	adult
	0705	W.T.S.	2	W	light phase
	0709	W.T.S.	1	W	light phase
	0710	Sooty T.	1	W	adult
	0712	W.T.S.	3	NE	light phase
	0715	W.T.S.	2	⊙	light phase
	0722	Fairy T.	1	⊙	adult
20	0723	Sooty T.	1	⊙	adults feeding
FF	0728	Sooty T.	15±5	⊙	light phase
	0732	Fairy T.	1	⊙	light phase
	0733	W.T.S.	1	NW	light phase
	0737	W.T.S.	2	NW	light phase
25	0745	W.T.S.	2	N	light phase
	0752	<del>W.T.S.</del>	1	SE	light phase
SF	0807	W.T.S.	35±5	SE	light phase? Bulwer's
		Sooty T.	40±5		Ad.
		Fairy T.	10±1		
	0808	Fairy T.	1		
	0811	W.T.S.	1		light phase
30	0815	<del>Xmas Is. Shear</del>	2	NW	? Bulwer's
	0820	<del>Xmas Is. Shear</del>	1	NW	? Bulwer's
FF	0827	Sooty T.	28±2		
		Wedgetails	30±3		
	0830	Fairy Tern	6		
	0837	<del>Xmas Is. Shear</del>	1	SE	? Bulwer's
		W.T.S.	1	NW	light phase

BFA-3 3  
BFB-1 1  
RFB-12 12  
GF-4 4  
S/P-5 5  
WTS-415 411  
Newell's 4 4  
Bulwer's 45 47  
DRP 1 1  
Xmas S. 2 2  
Leach's 1 1  
Sooty S. 1 1  
ST-150 152  
BET-2 2  
Arctic T-2 2  
TSG-41 41  
FT-62 62  
CNT-5 5  
602 756  
756





Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

Date 24 MAY 1967  
Pg. # 2

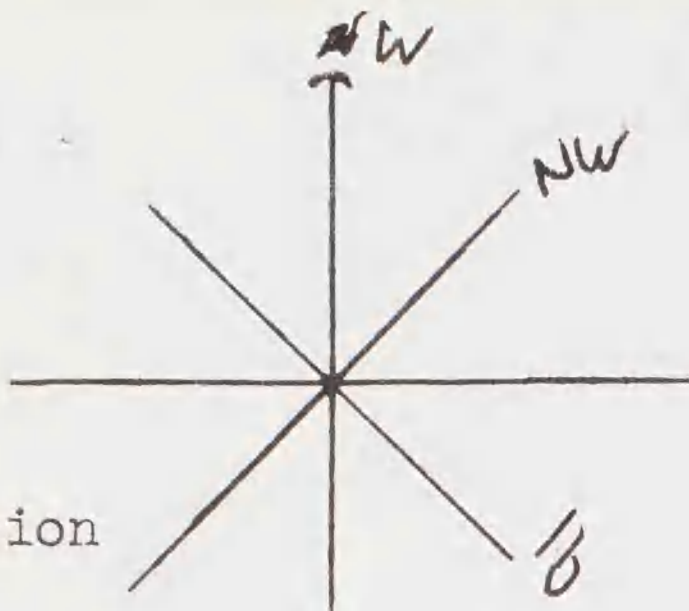
SPECIMEN  
or

LT 2087

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0841	Bulwer's	1✓	SE		Positive
0843	W.T.S.	2✓	⊙		LT
	<del>Xmas. Is. She.</del>	1✓	⊙		? Bulwer's
0845	W.T.S.	3✓	⊙		LT
0846	W.T.S.	2✓	⊙		LT
0849	Fairy T.	1✓	NW		
0852	Bulwer's	1✓	E		Positive
SF 0857	W.T.S.	50±5✓	SE		LT
0858	Bulwer's	1✓	SE		
0859	Fairy T.	3✓	E		
SF 0900	G. Frigate	1✓	⊙		LT
	W.T.S.	20+✓			LT
	Bulwer's	1✓			
0906	Bulwer's	1✓			
0908	Xmas. Is. She.	1✓	NE		?
FF 0912	Bulwer's	1✓	NE		
0915	WTS	120±10	⊙		LT
	ST	40±5	⊙		Ad
	FT	8±7	⊙		
0917	Bulwer's	1✓	N		
0918	WTS	1✓	SE		LT
0921	FT	1✓	N		
0926	Bulwer's	1✓	NW		
0938	Bulwer's	1✓	⊙		
0946	W.T.S.	1✓	NE		LT
0949	WTS	3✓	S		LT
0950	FT	2✓	N		
0951	W.T.S.	1✓	N		
SF 0954	Newell's	1✓	NE		
	Bulwer's	1✓			
	W.T.S.	25±2			LT
0958	W.T.S.	1✓	N		LT
1006	W.T.S.	2✓	⊙		LT
1007	F.T.	1✓	NE		
1010	XMAS IS	1✓	⊙		came in close - too large for Bulwer's
1026	F.T.	1✓	⊙		
1027	R.F.B.	4	⊙		lt. ph. adults feeding



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

SPECIMEN  
or

Diurnal

LT 2087

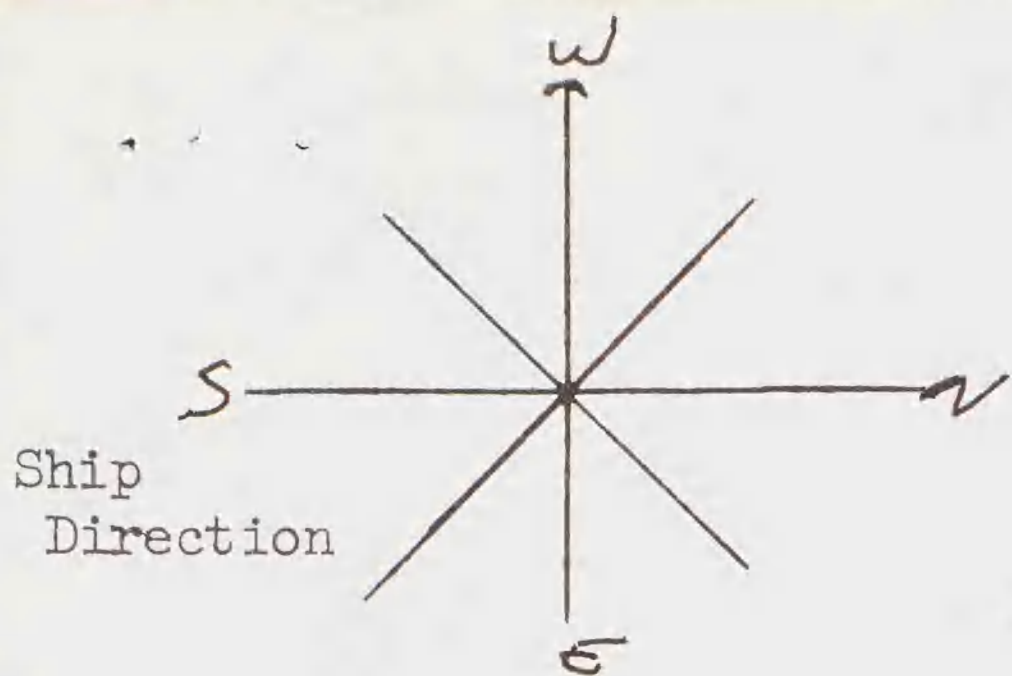
OBSERVERS:

1000-1145 TOX  
1145-0200 THOMPSON

Date 24 May '67  
Pg. # 3

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1033	Sooty T.	2✓	S		adults
1034	F.T.	1✓	⊙		
1040	Bulwer's	1✓	⊙		
<del>1040</del>	Sooty T.	1✓	S		adult
<del>1041</del>	F.T.	1✓	⊙		feeding.
1047	W.T.S.	1✓	N		LT.
1047	F.T.	1✓	N		- flying over W.T.S.
1050	RFB	1✓	⊙		INT PH. adult
1050	Bulwer's	1✓	⊙		
1118	Bulwer's	1✓	⊙		
1122	F.T.	1✓	SE		
1124	Bulwer's	2✓	SE		
1125	W.T.S.	1✓	⊙		LT.
1133	Bulwer's	1✓	⊙		
1134	F.T.	1✓	N		
1135	R.F.B.	1✓	⊙		INT PH. ADULT
1145	F.T.	2✓	⊙		
1145	Arctic Terns	2✓	N		seen together but King Ts flew at
1159	Shear/pet.	1✓	W		in other direction - Ad. Black caps - light
1200	G. Frigate	1✓	NW		gray backs, long forked tail and etc.
1201	FT	1✓	SW		very distant
SF 1211	RFB	4✓	E		3 LT / INT - all Ad.
	ST	3✓			Ads
	W.T.S.	3✓			2 DP LT
	G Frigate	1✓			♀ Ad
1218	F.T.	1✓	E		
1222	DRP	1✓	N		
1225	Bulwer's	1✓	NW		
1226	FT	1✓	N		
1231	Bulwer's	1✓	NW		
1235	FT	1✓	SW		
1240	FT	1✓	N		
1245	Bulwer's	1✓	N		
1250	"	1✓	N		
1251	FT	1✓	N		





Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

SPECIMEN  
or

*Diurnal*  
on LT 2087

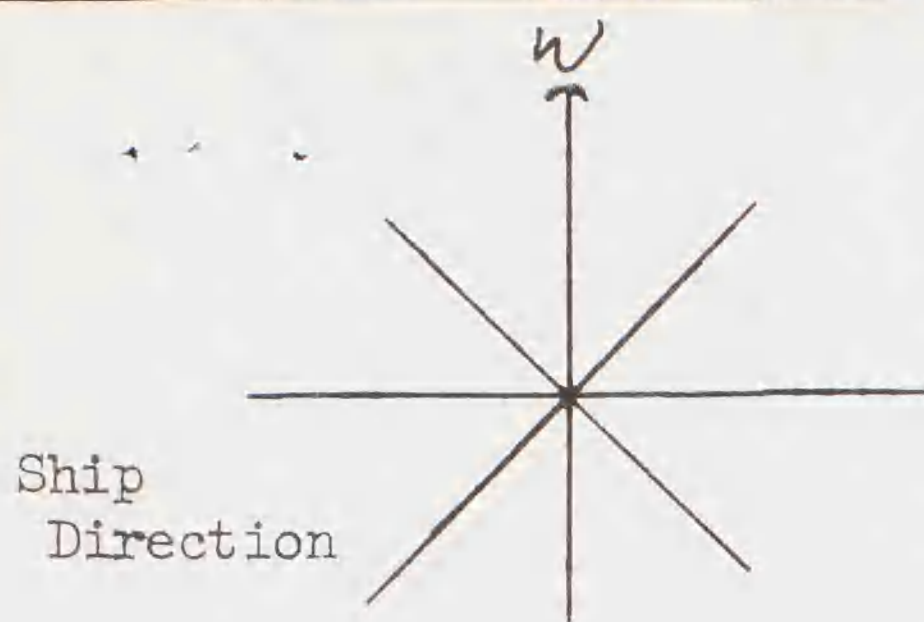
OBSERVERS:

1145-1400 Thompson  
1400-1600 - TVX  
1600-SS - Thompson

Date 24 MAY 1967  
Pg. # 4

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1305	FT	1 ✓	SE		
1323	Sooty shr.	1 ✓	W		
1330	FT	1 ✓	E		
1335	Bulwer's	1 ✓	E		
1337	Bulwer's	1 ✓	W		
1340	RFB	2 ✓	E		LT, INT-ads
1340	FT	1 ✓			
1345	GBT	1 ✓	N		DD.
1352	Newell's	1 ✓	NW		
1353	FT	1 ✓	NE		
1415	F.T.	1 ✓	N		
1422	W.T.S.	3 ✓	N		lt ph.
1422	Bulwer's	1 ✓	N		
1424	W.T.S.	1 ✓	N		lt ph.
1505	Bulwer's	1 ✓	E		
1508	BlackFooted ALB - 1 ✓		W.		adult
1510	WTS	1 ✓	N		lt ph.
1510	Bulwer's	1 ✓	N		
1523	W.T.S.	1 ✓	⊙		lt ph.
1523	F.T.	1 ✓	⊙		
1523	Gr. Frig.	1 ✓	⊙		
1531	W.T.S.	2 ✓	⊙		♂ adult hovering overhead
1532	Bulwer's	1 ✓	E		lt. ph.
1533	W.T.S.	1 ✓	E		lt ph.
1536	W.T.S.	1 ✓	E		lt ph.
1541	W.T.S.	1 ✓	E		lt ph.
1549	W.T.S.	1 ✓	E		lt. ph.
1553	Bulwer's	1 ✓	⊙		
1559	W.T.S.	1 ✓	E		lt ph.
1606	Bulwer's	1 ✓	E		
1609	W.T.S.	1 ✓	N		LT
1610	Bulwer's	1 ✓	E		
1614	W.T.S.	1 ✓	N		LT
1615	WTS	1 ✓	NE		LT
1616	"	1 ✓	NE		LT
1617	"	1 ✓	SE		LT
1621	Bulwer's	1 ✓	W		
1623	S.T.	1 ✓	E		DD
1623	W.T.S.	1 ✓	N		LT
1624	W.T.S.	1 ✓	N		LT
1624	W.T.S.	1 ✓	SE		LT





Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

SPECIMEN  
or

*Diurnal*  
LT 2087

OBSERVERS:

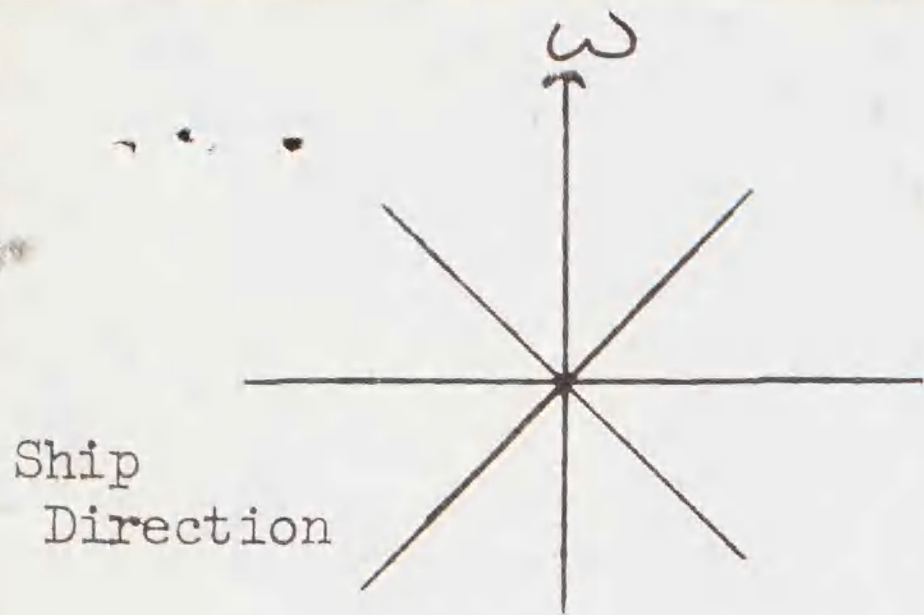
*1600-55 Thompson*

Date *24 MAY 1967*

Pg. # *5*

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1631	ST ✓	1 ✓	E		Ad
1635	ST ✓	3 ✓	NE		Ad
1635	W.T.S.	1 ✓			
1640	W.T.S.	1 ✓	SE		LT RT
1644	S.T.	1 ✓	E		Ad
1645	S.T.	1 ✓	E		Ad
1646	CNT	1 ✓			
1647	FT	1 ✓	E		Sit on a piece of Kotsam, Ad.
1652	CNT	3 ✓	E		Ad.
1652	FT	1 ✓	E		
1653	BKA	1 ✓	⊙		Ad.
1655	W.T.S.	2 ✓	⊙		RT.
1657	Shen/pet.	1 ✓	W?		Very distant - arc on horizon
1700	Bulwer's	1 ✓	N		
1703	BFA	1 ✓	⊙		
1708	W.T.S.	2 ✓	⊙		RT
1710	Bulwer's	2 ✓	E		
1715	W.T.S.	2 ✓	N		RT
1716	Bulwer's	1 ✓	SE		
1721	Bulwer's	1 ✓	SE		
1722	W.T.S.	1 ✓	E		RT
1725	ST	3 ✓	E		Ad.
1728	Bulwer's	1 ✓	NE		
1729	Bulwer's	1 ✓	NE		
1731	W.T.S.	1 ✓	E		
1740	S.T.	1 ✓	NE		Ad.
1803	W.T.S.	3 ✓	E		lt ph.
1807	B.F.B.	1 ✓	W		immature
1810	W.T.S.	1 ✓	W		lt. ph.
1811	Leach's	1 ✓	⊙		
1812	Bulwer's	1 ✓	⊙		
1820	Bulwer's	1 ✓	E		
1826	Newell's	1 ✓	SE		
1828	Sooty T.	2 ✓	E		Ad.
1830	W.T.S.	1 ✓	N		LT
1836	"	1 ✓	N		RT





SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

1600-55 Thompson

Date 24 MAY 1967

Pg. # 6

SPECIMEN

or

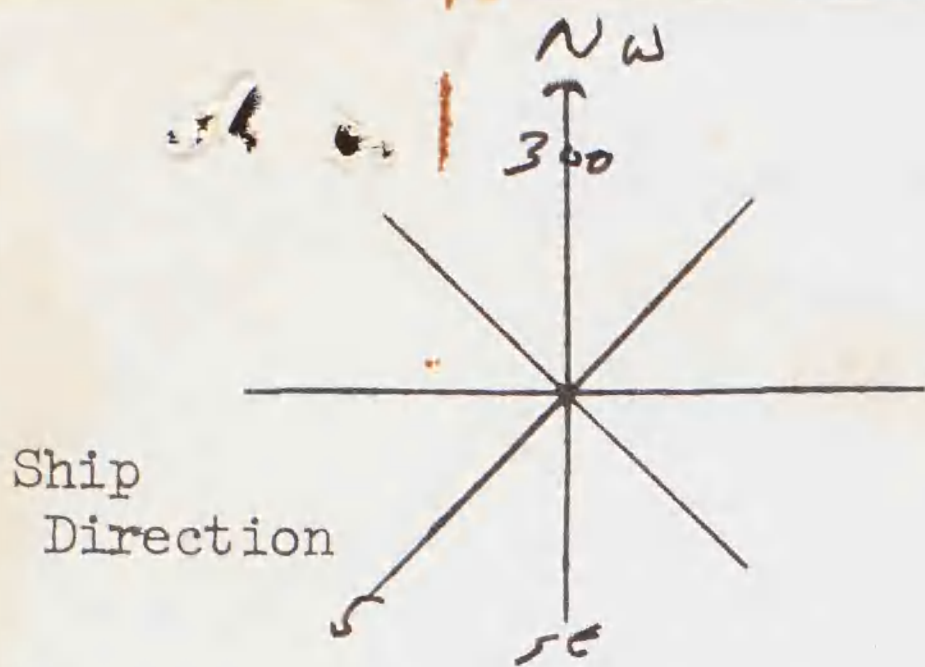
DT-2087

TIME SPECIES # DIR. BAND NO. REMARKS

1845	Shear/pet	1✓	E		- white a-c on horizon ? WTS
1854	W.T.S.	1✓	W		2+
1855	W.T.S.	2✓	E		2+
1857	S.T.	3✓	N		Ad.
1858	F.T.	1✓	⊙		
1903	W.T.S.	2✓	E		2+
1904	F.T.	1✓	E		
1905	GBT	1✓	N		
1906	Bulwer's	1✓	W		
1909	W.T.S.	2✓	W		2+
1911	W.T.S.	1✓	N		2+
1914	S.T.	1✓	NW		Ad.
1920	F.T.	1✓	N		

1923-55





Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

512-0800 Thompson

Date 25 MAY 1967  
Pg. # 1

SPECIMEN  
or

Diurnal

LT 2087

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0617	BFA	1✓	0		Following ship - 270
0619	Bulwer's	2✓	SE		
0621	Sooty T.	2✓	E		Ad.
0625	BFA	1✓	0		Following LT 2076
0626	WTS.	1✓	E		2+
0629	BFA	1✓	0		Follows ship
0630	W. T. H. C.	1✓	0		
0631	Sooty Tern	2✓	NE		Ad.
0635	ST	3✓	NE		Ad.
0636	ST	7✓	E		Ad.
0637	WTS.	1✓	N		2+
0638	ST	4✓	E		Ad.
0639	ST	5✓	NE		Ad.
0640	ST	3✓	E		Ad.
0641	CNT	2✓	NE		
0642	WTS	1✓	E		2+
0642	ST	1✓	E		Ad.
0648	CNT	2✓	E		
0649	ST	1✓	E		Ad.
0653	BFA	2✓	0		total at 5 following ship at this time
0655	W. L. S.	1✓	NW		
0656	CNT	1✓	NE		
0657	ST	1✓	E		Ad.
0658	CNT	1✓	NE		
0659	Bulwer's	1✓	E		
0700	S.T.	1✓	E		Ad.
0701	CNT	1✓	E		
0702	Bulwer's	2✓	E		
0703	W. L. S.	1✓	N		
0704	C. Frigate	1✓	0		OVER - LT 2086, 2081
0707	ST	1✓	E		Ad. - COURSE 240
0714	ST	2✓	N		
0715	Bulwer's	1✓	E		Ad.
0718	Bulwer's	1✓	E		
0722	W. T. S.	1✓	NW		2+
0724	Bulwer's	1✓	SW		
0725	ST	1✓	SE		Ad.
0726	CNT	3✓	N		

Laysan A 4  
512 BFA 3941

75 WTS 205  
50  
10  
40 Small Pterod 1

4 Bulwer's 1617

W. L. S. 2✓

BFB 73

2 RFB-3 3✓

WT 1✓

Phalarope? 1✓

ST 35 435

CNT 14✓

HNT 1✓

FT-4✓

S/P 1✓

Fluents

9-590

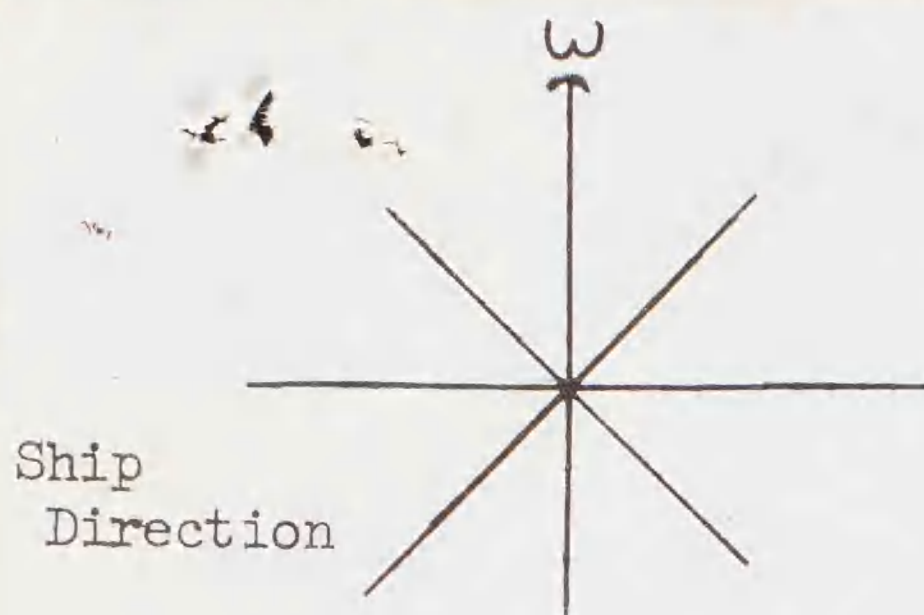
647-928

727

734

137  
397  
434





SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

512-0800 Thompson  
0800-1000 - Tux  
0630 - Thompson

Date 25 MAY 1967  
Pg. # 2

SPECIMEN  
or

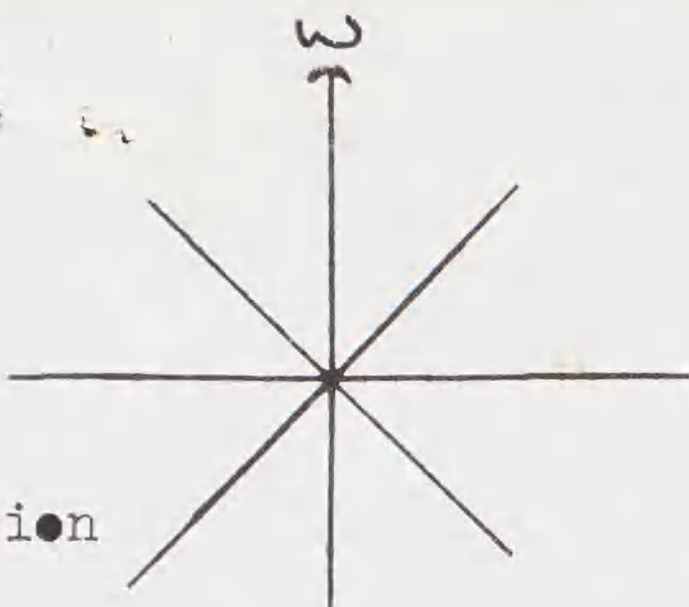
Diurnal

LT-2087

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0730	W.T.S.	1 ✓	W		2+
0732	W.T.S.	1 ✓	SW		2+
0733	Bulwer's	1 ✓	NE		
TF 0735	CWT	4 ✓	N		Ad.
	ST	1 ✓			
0738	BFA	9 ✓			
	Laysan A	1 ✓			all following ship
0745	W.T.S.	2 ✓	S		
					(commencing at 0800 (1/2 HOURLY ALBATROSS COUNT ONLY))
0755	Sooty T.	1 ✓	N		adult
0800	B.F.A.	6 ✓			following ship.
0810	W.T.S.	1 ✓	⊙		lt. ph.
10 0815	Laysan A	1 ✓	⊙		following ship.
0816	W.T.S.	1 ✓	⊙		lt. ph.
0825	W.T.S.	1 ✓	NE		lt. ph.
0827	Sooty T.	1 ✓	NW		adult
0830	B.F.A.	5 ✓	⊙		following ship.
0930					close obs within sight of Terns F.F.S.
1630					open obs. about 5 mi. off Tern Island F.F.S.
1635	BFA	1 ✓	SE		
1638	FT	2 ✓	⊙		FS. feeding
1640					2 Twotops sp.
1640	Laysan A	1 ✓	⊙		FS.
1644	Sooty T	3 ✓	SE		Ad.
1650	BFA	2 ✓	⊙		FS.
20 1654	ST	1 ✓	W		Ad.
1656	Shear/pet.	1 ✓	SW		Pterodroma
1701	BFB	1 ✓	NE		Ad.
1702	HNT	1 ✓	NE		
1703	S.T.	2 ✓	⊙		Ad.
25 1704	W.T.S.	1 ✓	E		2+
1706	Bulwer's	1 ✓	N		
1708	ST	2 ✓	E		Ad.
1717	FT	1 ✓	E		

Count - 27 -





Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

SPECIMEN

or

DIR. BAND NO. REMARKS

OBSERVERS:

1630-1745 Thompson

1745-SS TUX

1941

Date 25 MAY 1967

Pg. # 3

Diurnal Leewards

LT 2087

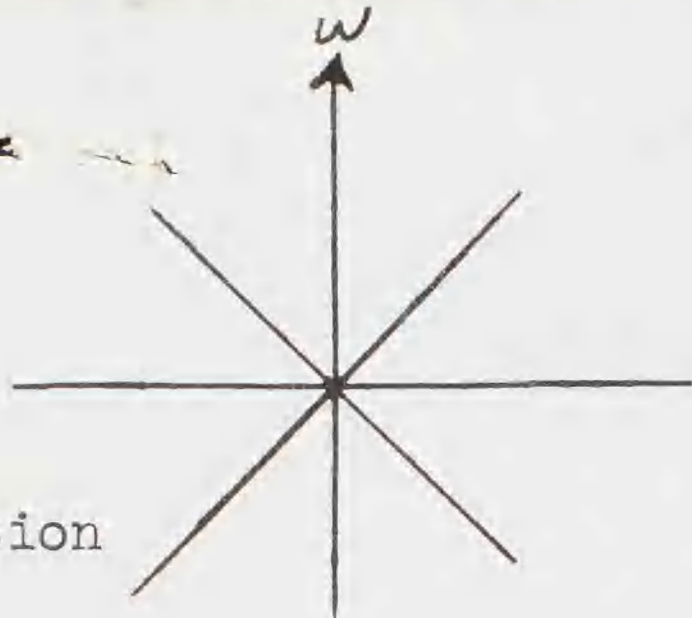
TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1721	W.T.S.	1 ✓	E		at
1734	S.T.	1 ✓	S		DD.
1737	ET	1 ✓	SE		
1744	Sooty T.	24 ✓	E		adults 3 loosely grouped.
	W.T.S.	2 ✓	E		lt ph
1745	B.F.A.	1 ✓	⊙		following ship.
1748	Gr. Frig	1 ✓	⊙		
1750	Bulwer's	1 ✓	NW		
1751	B.F.B.	2 ✓	E		adults.
1753	WTS	1 ✓	W		lt ph
1754	R.F.B.	1 ✓	E		lt ph adult
1754	Sooty T.	2 ✓	E		adults.
1755	B.F.A.	1 ✓	W		
1756	Sooty T.	1 ✓	E		adult
1803	Sooty T.	5 ✓	E		adults
1805	W.T.S.	3 ✓	E		lt phase
1807	W.T.S.	3 ✓	E		lt ph.
1815	Sooty T.	60 ± 5	⊙		adults
	W.T.S.	75 ± 5	⊙		lt phase
	Bulwer's	4 ✓	⊙		
	R.F.B.	2 ✓	⊙		lt ph adults.
1820	Sooty T.	135 ✓	⊙		adults
	W.T.S.	50 ✓	⊙		lt phase
1824	Gr. Frig.	1 ✓	⊙		adult ♀
	Laysan Albat	1 ✓	⊙		
1830	BFA	2 ✓	⊙		
	W.T.S.	10 ✓	⊙		lt ph.
	Sooty T.	60 ± 5	⊙		adults.
1834	W.T.S.	4 ✓	W		lt ph.

feeding encompassed large area of ocean

46



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

-55- Tux

1941

Date 25 May '67

Pg.# 4

SPECIMEN  
or

LT 2087

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1843	W.T.S.	1✓	W	—	lt. ph.
1850	B.F. a.	1✓	⊙	—	
1851	W.T.S.	1✓	N	—	lt. ph.
1855	Phalarope sp	1✓	⊙	—	flew <del>into</del> near bow then sat on water — gray back — light wing markings —
FF 1900	BFA	3✓	⊙	—	adults } all feeding very heavily — W.T. & ALB — sitting on water. Bunched together
	Sooty T	90✓	⊙	—	
	W.T.S.	40✓	⊙	—	
1905	Pterodroma small	1✓	E	—	
1908	Sooty T.	1✓	E	—	? Bonin Island?
1911	Bulwer's	1✓	E	—	adult.
1912	Sooty T	1✓	E	—	
1915	BFA	2✓	⊙	—	adult.
1923	BFA	1✓	E	—	
1928	Bulwer's	1✓	⊙	—	
1930	W.T.S	2✓	NW	—	lt ph.
1940	BFA	2✓	⊙	—	following ship.
1941					SUNSET END OBS.



Laysan Alb		3	1		4 ✓
BFA/batman	5	23	4	89	41 ✓
Bulwers	8	2	5	2	17 ✓ -2
Sooty tern	34	11	295	92	435 ✓ -2
W-T Shear	4	8	149	44	205 ✓ -1
C-N Tern	10	4			14 ✓
WRSP	2				2 ✓
N-Frigate	1		2		3 ✓
FT		3	1		4 ✓
Shear/pet		1			1 ✓
HNT		1			1 ✓
BFB		1	2		3 ✓
RFB			3		3 ✓
Phalaropus		57		1	1 ✓
Pterodroma small	67		467	1	1 ✓
				149	

Wandering Tattler

1

1  
736

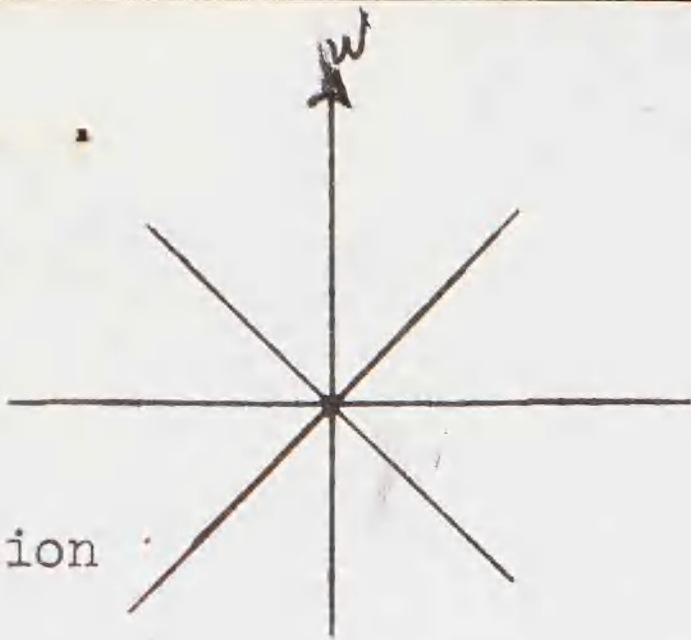
9 flocks

2082  
25 May 1967

Two Tursions  
1640 after isl  
F.F.



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

SR0800 Tux

Date 26 May '67  
Pg. # 1

SPECIMEN  
or

LT2087

TIME SPECIES # DIR. BAND NO. REMARKS

0633					SUNrise Begin OBS - (W - 270 - 285°)
0645	W.T.S.	1	W	lt ph	Gardiner's Pinnacles in Sight.
0650	B.B.T.	2	E	adults	
0700	G.B.T.	2	SW	adults	
0704	W.T.S.	1	W	lt ph	
0714	B.G.N.	1	@		
0715	B.F.B.	1	o	adult.	
0719	G.B.T.	1	o	adult	
0719	B.F.Q.	1	@		
0720	W.T.S.	1	o	lt. ph.	
0728	G.B.T.	3	o	adults	
0730	W.T.S.	1	W	lt ph	
0730	B.G.N.	1	@		
0735					

Klocks  
4-307

BFA 1.7 ✓  
WTS 150 ✓  
Bulwer's 5 ✓  
BFB - 1 ✓  
GF 2 ✓  
GBT - 8 ✓  
BGN - 2 ✓  
CNT - 3 ✓  
400

close obs. as LT. near pinnacles

within 1 mile.  
Gardiner's.

5 BFB - 1 sub Ad. (ca 30)

BGN

GBT - many - immatures (ca 1000)

GF 60+ over island

HNT - 3+

RTTB

ST -

R.T. - 1

BB - 11

FT - 120

(BGN - in  
Primates net)

RTTB carrying 3 prs.

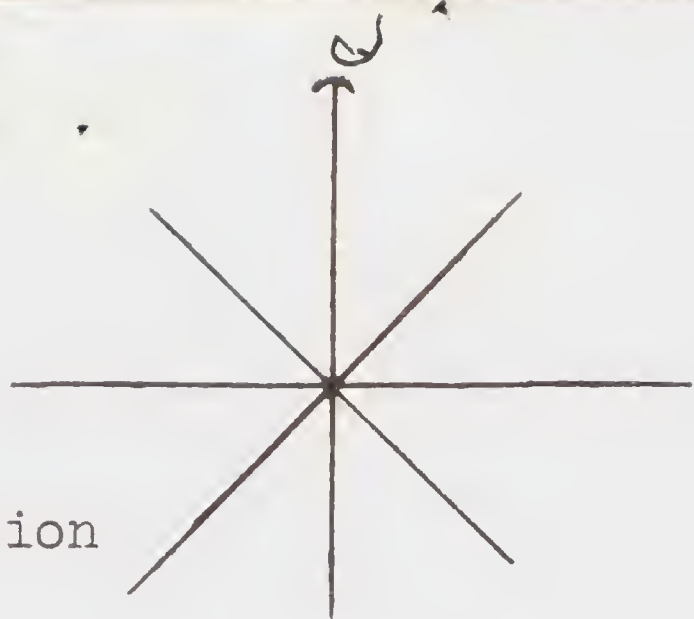
Not in

ADP  
FORMS

Count  
around  
the pinnacles



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS LEEWARDS  
AT SEA DAILY LOG - E

OBSERVERS:  
1200-1400 Thompson  
1400-1600 Tux  
1600-1800 Thompson  
1800-SS - Tux

Date 26 May 1967  
Pg. # 2

SPECIMEN LT 2087  
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1200					open observation - Smiles at
1205	BFA	1	2		following ship
1212	CNT	1	NE		
TF 1240	ST	5	W		Ad.
1241	CNT	1	E		
1300	W.T.S.	1	NE		2+
ST 1305	W.T.S.	1	E		2+
1314	BFA	1	⊙		Following ship - total = 2
1334	W.T.S.	1	E		2+
1337	S.T.	2	E		Ad.
1345	G. Frigate	1	E		Ad ♀.
1349	Bulwer's	1	N		
1354	S.T.	1	W		Ad.
1356	S.T.	4	SW		Ads.
1358	W.T.S.	1	W		2+
1359	Bulwer's	1	S		
1407	CNT	1	S		
1407	W.T.S.	1	S		lt ph
1424	W.T.S.	2	N		lt ph
1426	B.F.A.	2	⊙		following ship.
1432	Sooty T.	1	E		adult
✓ 1436	W.T.S.	1	S		lt ph.
1452	W.T.S.	2	W		lt ph.
1504	Bulwer's	1	⊙		
1513	Sooty T.	1	NE		adults
FF 1525	Sooty T.	85 ± 15	⊙		adults
	Fairy T.	1	⊙		
	W.T.S.	15	⊙		lt ph. } feeding
	Gr. Frig.	1	⊙		hovering
1548	W.T.S.	1	W		lt ph.
1556	W.T.S.	1	⊙		lt ph.
1610	Bulwer's	1	E		
1615	W.T.S.	1	W		Ad.
1628	W.T.S.	1	N		Ad.
1639	Bulwer's	1	⊙		
1651	W.T.S.	1	SW		2+
1653	W.T.S.	1	S		2+

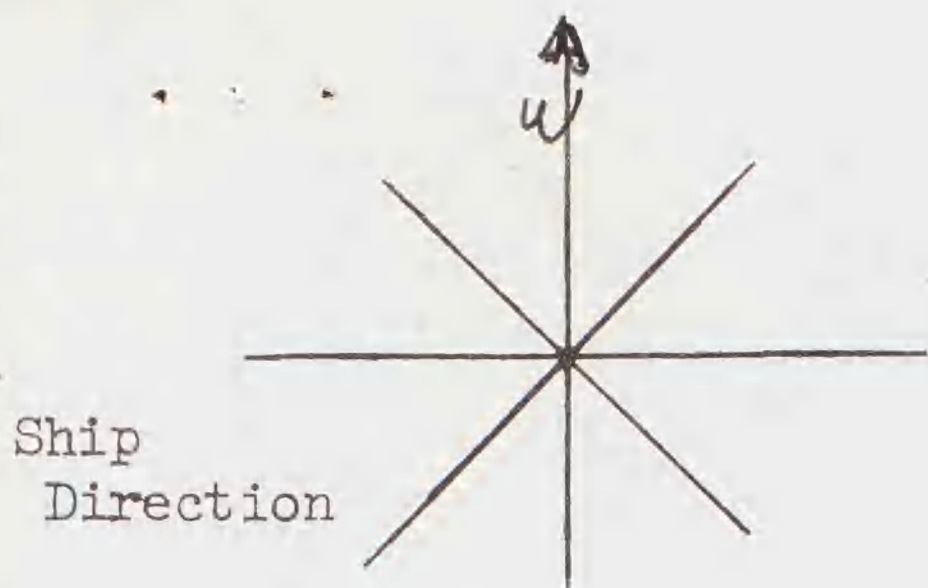


11  
150  
211  
39  

---

400





Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

*Leeward*

OBSERVERS:

1600-1800 Thompson  
1800-2200 ~~Thompson~~

Date 26 MAY 1967  
Pg. # 3

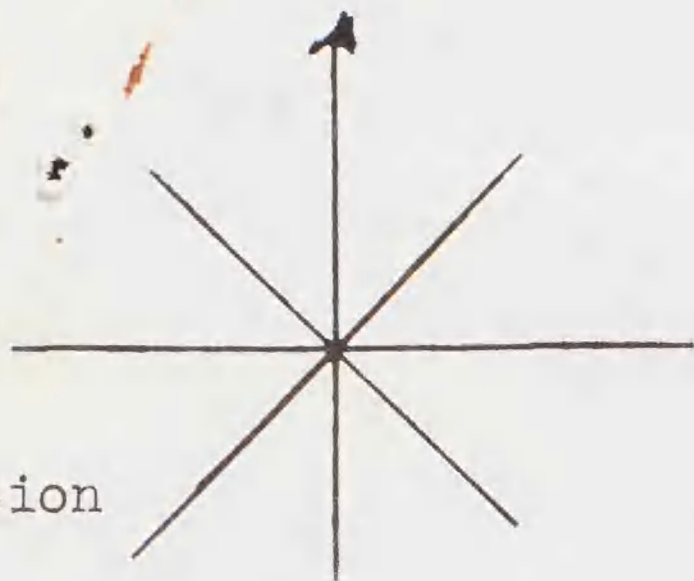
SPECIMEN  
or

27 2087

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1705	BFA	6	O		following ship
1710	W.T.S.	1	E		2+
1711	"	1	W		2+
1715	W.T.S.	3	W		2+
1717	W.T.S.	1	E		2+
1725	W.T.S.	1	NW		2+
1726	BFA	2	N		
1745	W.T.S.	1	N		
FF 1745	Sooty T.	45	⊙		lt. ph. } breeding
	W.T.S.	40	⊙		adults }
1755	W.T.S.	1	E		lt. ph.
FF 1804	W.T.S.	50 ± 10	⊙		lt. ph.
	Sooty T.	65	⊙		adults
1819	W.T.S.	2	NE		lt. ph.
1823	W.T.S.	2	⊙		lt. ph.
1830	W.T.S.	3	W		lt. ph.
1831	Sooty T.	2	SW		adults
1850	W.T.S.	3	W		lt. ph.
1858	Laysan Albatross	1	⊙		following ship
1858	B.F.A.	4	⊙		" "
1906	W.T.S.	3	W		lt. ph.
1924	W.T.S.	1	W		" "
2004					Sunset end obs.



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

SPECIMEN  
or

LEEWARDS

LT 2087

OBSERVERS:

SR-800 Thompson

Date 27 May '67

Pg. #

TIME SPECIES # DIR. BAND NO. REMARKS

0635 Sunrise begin obs.

Laysan A

1✓

Q

around ship

LA 36 \* 37

0639 L.T.S.

2✓

N

2+

643 W.T.S.

1✓

NE

2+

0645 Bonin B. P.

2✓

N

WTS 177 175

0646 Laysan A

1✓

E

Xmas I 1✓

0647 BIP

1✓

N

BIP 35✓

0655 BFA

3✓

Q

following ship

W.T.S.

1✓

E

W.T.S.

2✓

N

0700 Sterna sp.

1✓

N

Arctic? p. not GST?

0701 W.T.S.

2✓

N

0702 BIP

2✓

N

2+

0703 LA

2✓

Q

2 flocks  
(2f)

704 W.T.S.

4✓

N

2+

0705 W.T.S.

10✓

Q

one sweeter at the horizon - 4+ all.

0706 B.I.P.

2✓

N

ST - 20 22

0708 Xmas B.

1✓

N

FT - 2

0711 BIP

2✓

N

Sterna sp. - 1

0714 BIP

1✓

N

Arctic T. - 1✓

0715 W.T.S.

1✓

N

2+

SKUG - 1✓

0716 BIP

1✓

S

0717 ST

2✓

E

Ad.

13

0717a W.T.S.

1✓

N

2+

0718 W.T.S.

1✓

NW

2+

0719 BFA

1✓

N

2+

0720 W.T.S.

1✓

N

2+

0721 W.T.S.

1✓

E

2+

0724 Bulwer's

1✓

N

2+

0725 W.T.S.

1✓

N

2+

0727 W.T.S.

2✓

N

2+

0728 W.T.S.

3✓

N

2+

Laysan A

1✓

N

2+

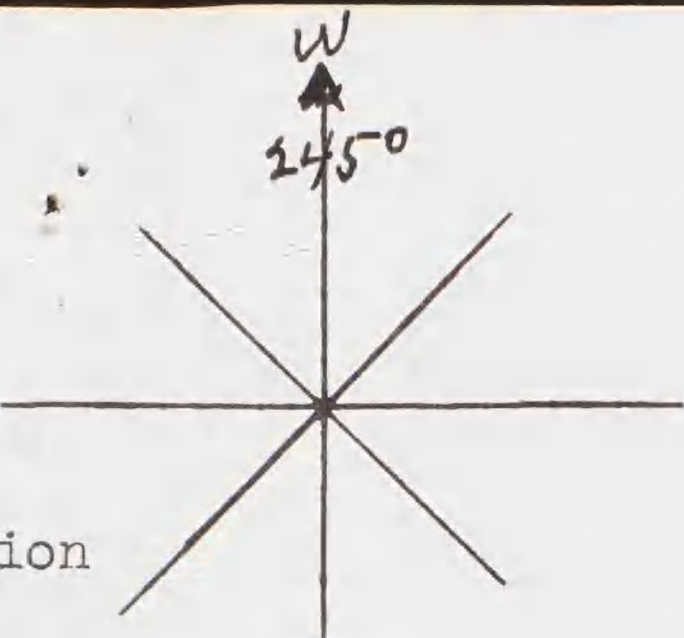
0729 BFA

1✓

NW

60





Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

SPECIMEN  
or

*Leeward*  
LT-2027

OBSERVERS:

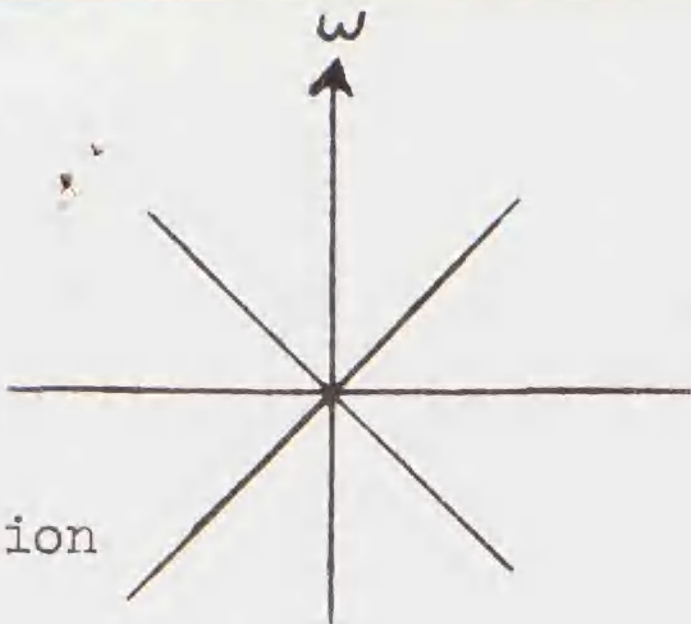
*SR-0200 Thompson*  
*0800-1000- Tux*

Date *27 MAY 1967*  
Pg. # *2*

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0730	W.T.S.	2 ✓	N		2+
0731	RFB	1	N		Ad, LT
0734	WTS	5 ✓	N		1+
0734	LA	2 ✓			} ne sweep of horizon
0734	PKA	1 ✓			
0740	LA	1 ✓	S		
0740	WTS	8 ✓	N		} Horizon sweep.
0740	S.T.	10 ✓	N		
0741	ST	2 ✓	N		Ad.
TF 0744	W.T.S.	6 ✓	N		2+
0745	W.T.S.	2 ✓	N		2+
0746	BKA	6 ✓	0		following ship
0750	Bonin cl.	1 ✓	0		
0754	W.T.S.	2 ✓	N		lt. ph.
0755	Bonin cl.	1 ✓	N		
0800	W.T.S.	11 ✓	N		lt ph.
0800	L.A.	1 ✓	0		} one sweep of horizon
0800	B.F. a	6 ✓	0		
0800	Bonin cl.	2 ✓	N		following ship
0804	W.T.S.	8 ✓	N		lt. ph. } Horizon sweeps
0808	W.T.S.	9 ✓	N		lt. ph. } - cumulative
0810	Bonin cl.	1 ✓	N		
FF 0814	W.T.S.	22 ✓	0		lt. ph. feeding.
0819	W.T.S.	3 ✓	N		lt. ph.
0827	W.T.S.	3 ✓	N		lt. ph.
0832	W.T.S.	3 ✓	N		lt. ph.
0840	W.T.S.	1 ✓	N		lt. ph.
0841	Bonin cl.	1 ✓	SE		lt. ph.
0843	W.T.S.	1 ✓	SE		lt. ph.
0843	W.T.S.	1 ✓	N		lt. ph.
0850	L.A.	1 ✓	0		same bird as 0800 sighting
0855	Bonin cl.	1 ✓	N		
0900	W.T.S.	1 ✓	S		lt. ph.



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

0800-1000 - Tux  
1000-1200 - Thompson

SPECIMEN  
or

LEEWARDS

Date 27 MAY '67  
Pg.# 3

LT 2087

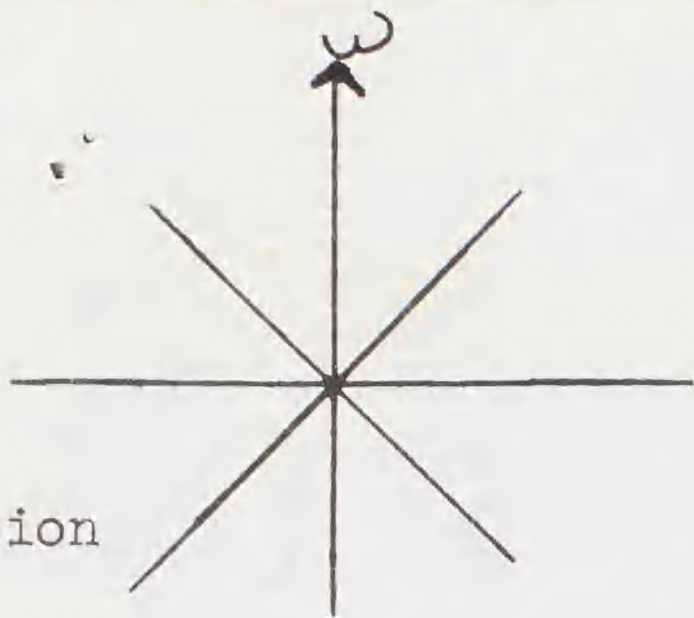
flock

TIME SPECIES # DIR. BAND NO. REMARKS

0906	B.F.A.	1 ✓	⊙		circling ship.
0912	Bonin. cl.	1 ✓	SW		
0913	Sooty T.	1 ✓	W		adult.
0917	Bonin cl.	1 ✓	E		
0920	Laysan Alb.	2 ✓	⊙		
0928	W.T.S.	1 ✓	NW		lt ph.
0928	Bonin cl.	1 ✓	NW		
0930	B.F.A.	3 ✓	⊙		following ship.
0933	Laysan Alb.	2 ✓	⊙		
0937	Bonin cl.	2 ✓	SE		
0941	W.T.S.	2 ✓	W		lt ph.
0941	Bonin cl.	1 ✓	S		
0949	W.T.S.	1 ✓	S		lt ph.
0955	Laysan Alb.	1 ✓	S		lt ph.
0955	W.T.S.	1 ✓	⊙		
1000	W.T.S.	1 ✓	S		lt ph.
1003	W.T.S.	1 ✓	W		2+
1007	W.T.S.	2 ✓	S		2+
1007	B.I.P.	1 ✓	S		
1009	W.T.S.	1 ✓	NE		2+
1010	B.I.P.	1 ✓	S		
1014	Laysan A	1 ✓	SE		
1015	"	1 ✓	SE		
1016	B.I.P.	1 ✓	S		
1018	Laysan A	1 ✓	E		
1019	Laysan A	1 ✓	N		
1020	W.T.S.	1 ✓	E		2+
1023	Laysan A	1 ✓	SE		
1029	W.T.S.	1 ✓	S		2+
1035	B.F.A.	1 ✓	S		
1036	Sooty Terns	2 ✓	N		100?
1037	B.I.P.	1 ✓	S		
1044	Laysan A	1 ✓	SE		
1046	"	1 ✓	N		
1048	B.I.P.	1 ✓	N		
1049	W.T.S.	1 ✓	S		LT
1050	W.T.S.	1 ✓	S		
1052	B.I.P.	1 ✓	N		



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

1000-1200 Thompson

1200-1400 Tux

1400-1600 Thompson

SPECIMEN  
or

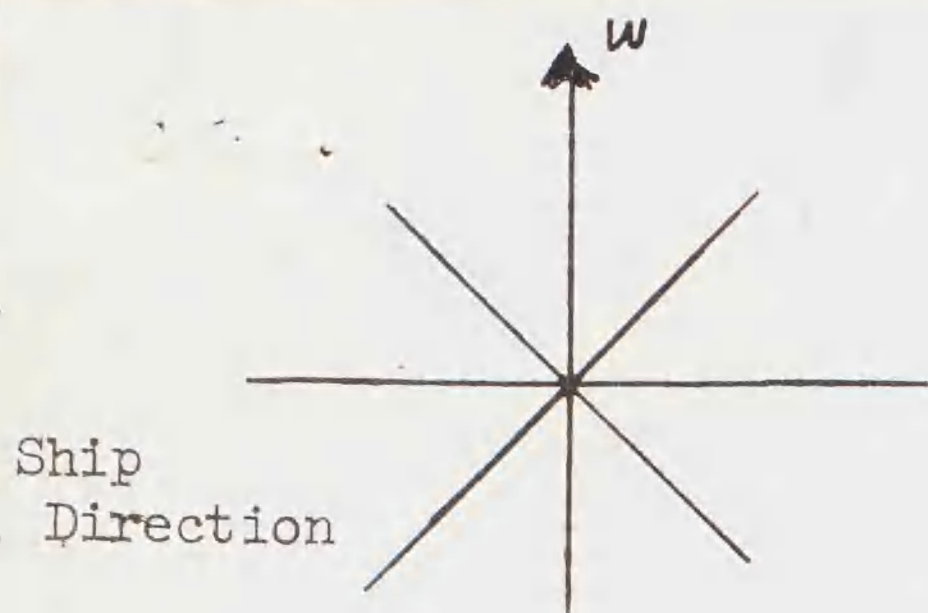
*Diurnal*

*Leewards*  
*LT 2087*

Date *27 MAY 1967*  
Pg. # *4*

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1055	Laysan A	1 ✓	N		
1106	B.I.P.	1 ✓	E		
1113	S.T.	2 ✓	S		ad.
1114	W.T.S.	1 ✓	S		2t.
1116	Laysan A.	1 ✓	N		
1118	Laysan A	1 ✓	S		
1120	B.I.P.	1 ✓	SE		
1138	WRSP	1 ✓	⊙		? Leach's
1140	Laysan A	1 ✓	S		
1156	W.T.S.	4 ✓	⊙		Lt. ph.
1200	W.R.S.P.	1 ✓	⊙		
1207	Bonin Is.	1 ✓	S		
1210	W.T.S.	2 ✓	SE		lt. ph.
1220	W.T.S.	1 ✓	W		lt. ph.
1224	Arctic T.	1 ✓	N		adult.
1225	W.T.S.	2 ✓	⊙		lt. ph.
1230	W.T.S.	1 ✓	NE		lt. ph.
1233	Bonin Is.	1 ✓	⊙		" "
1238	W.T.S.	1 ✓	S		lt. ph.
1245	W.T.S.	2 ✓	N		" "
1250	W.T.S.	2 ✓	⊙		" "
1254	Laysan	1 ✓	⊙		" "
1304	W.T.S.	4 ✓	S		lt. ph.
1305	B.F.A.	3 ✓	⊙		following ship.
1310	WTS	1 ✓	N		lt. ph.
1318	WTS	2 ✓	N		" "
1337	WTS	1 ✓	W		" "
1355	WTS	1 ✓	N		" "
1356	R.T.B.	1	W		ADULT.
1403	WTS	1 ✓	S		ad.
1409	B.F.A.	1 ✓	W		
1415	Laysan A	1 ✓	SE		
1433	Laysan A	1 ✓	W		
1435	W.T.S.	1 ✓	S		ad.
1439	Laysan A	1 ✓	NN		





SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:  
1400-1600 Thompson  
1600-1800 - Tux  
1800-55 - THOMPSON

Date 27 MAY 1967  
Pg. # 5

SPECIMEN  
or

Diurnal  
LT 2087  
leeward

TIME SPECIES # DIR. BAND NO. REMARKS

1445	S.T.	1	⊙	AD.
1446	Laysan A	1	a	Following Tug
1530	Laysan A	1	N	
1550	S.T.	1	E	AD.
1609	W.T.S.	1	⊙	
1641	Sooty T.	1	W	adult.
1645	W.T.S.	2	⊙	lt ph.
1646	SKUA	1	W	
1650	B.F.A.	2	⊙	} following ship.
1650	Laysan A	2	⊙	
1717	F.T.	1	⊙	feeding
1723	W.T.S.	2	W	lt ph.
1728	W.T.S.	2	⊙	" "
1748	Fairy T.	1	⊙	seen at a distance between 2087 & 2086 - approx - 2 miles out judged in relation to other tug.
1800	Laysan A.	1	⊙	Following ship.
1800	B.F.A.	2	⊙	
1842	Laysan A	1	a	Following - total of 2
1842	W.T.S.	2	N	
1900	W.T.S.	1	N	2+
1927	BFA	3	N	2+
1927	Laysan A	1	X	Garbage dump over - only one BFA following ship at the time - 3 BFA 1 Laysan came to the junk before it disappeared out of sight.
1928	W.T.S.	1	SW	
1945	W.T.S.	1	W	
1952	B.I.P.	1	NE	lt
2021				Close observation



LA	37✓
BFA	34✓
WtSh	175✓
Xmas Isl Shear	1✓
BEP	35✓
WRSP	2✓
Bulwer	1✓
RFB	1✓
RTTB	1✓
ST	22✓
FT	2✓
Shear	1✓
Arctic Shear	1✓
SKua	1

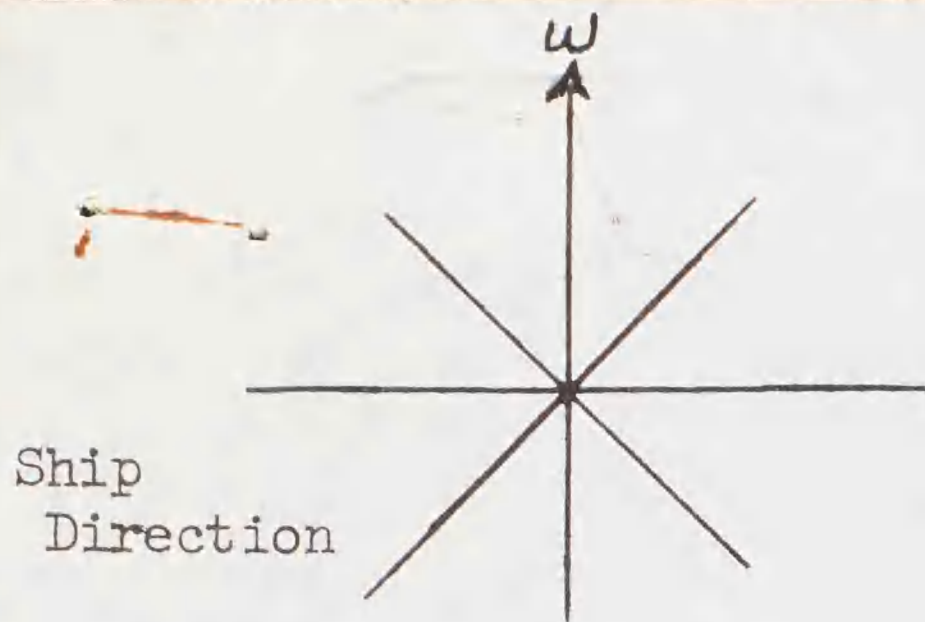
314

2 flashes

27 May

2087





Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

SR-800 TUX

SPECIMEN

LEEWARDIS

Date 28 MAY '67

Pg. # 1

LT2087

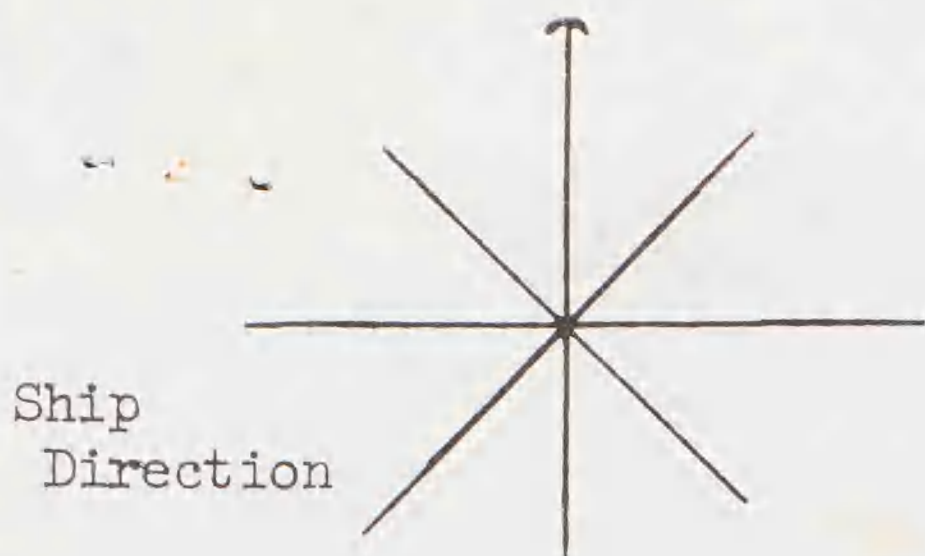
TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0647					SUNrise Begin OBS. - rain at S.R.
0650	W.T.S.	3✓	⊙		lt ph
0651	B.F.A.	1✓	⊙		following ship.
0657	W.T.S.	6✓	⊙		lt ph - 1 sweep of horizon
0700	W.T.S.	3✓	W		lt ph.
T.P. 0701	Sooty T.	7✓	E		adults
0702	Laysan Alb.	1✓	⊙		
0704	W.T.S.	6✓	⊙		one sweep - lt ph
0705	Sooty T.	1✓	E		adult.
0707	" "	2✓	E		"
0711	" "	1✓	E		"
0713	W.T.S.	4✓	⊙		lt ph.
0714	Ruddy Turnstone	5✓	E		
0715	C.N.T.	1✓	E		
0715	W.T.S.	1✓	W		lt ph.
0720	W.T.S.	1✓	W		lt ph
0720	R.T.B.	1✓	⊙		adult
0720	CNT.	1✓	E		} one horizon sweep.
0720	Fairy T.	1✓	NW		
0722	Laysan Alb.	1✓	⊙		} following LT 81
	B.F.A.	1✓	⊙		
0724	CNT	4✓	E		
0725	W.T.S.	2✓	⊙		lt ph.
0726	Sooty T.	3✓	E		adults
0730	" "	3✓	E		"
0734	" "	3✓	E		"
0735	" "	4✓	E		"
0738	Laysan	1✓	⊙		} one horizon sweep.
	B.F.A.	1✓	⊙		
	W.T.S.	1✓	⊙		
	Sooty T.	5✓	⊙		ad.
0745	Sooty T.	8	⊙		adults - horizon sweep.
0752	R.T.B.	2	⊙		ad.

Flocks

1 = 7

0958  
0647  
2h. 11m.





Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:  
0800-1000 Thompson

SPECIMEN

LT 2087

or

Leewards

Date 28 MAY 1967

Pg. # 2

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0800	Sooty Terns	6	⊙		Horizon Sweep.
0805	Laysan A	2	⊙		Horizon Sweep.
	F.T.	3	⊙		
	S.T.	8	⊙		
0810	ST.	3			Horizon Sweep.
	F.T.	4			
	BFA	1			
0812	WTS.	3	⊙		Lt
0815	HNT	2	⊙		
0816	F.T.	2	S		
0820	HNT	11	E		
0825	W.T.S.	2	⊙		Horizon Sweeps
	F.T.	1	⊙		
0830	W.T.S.	2	E		Lt.
0831	H.N.T.	5	⊙		
0832	FT	5	⊙		
	Laysan A	3			Horizon Sweep.
	Wedgetail	3			
	ST.	4			
0840	FT	2			
0841	HNT	2			
0843	ST.	4	E		Ad.
0845	W.T.S.	2	S		Lt.
	Laysan A	3			
0846	HNT	1			
0850	G Frigate	3	SW		
0853	BFA	10	⊙		→ Attracted to garbage dump by other TBs
0855	Laysan A	4	⊙		
	BFA	5			Sweep at Sprall line
	Laysan	3			
	CNT	1			
0856	ST	5+			Ad.
	W.T.S.	1	⊙		
0858	GAT	1	⊙		Lt
0900					Ad.



19  
81  
1109



28 May

87

67  
29  
38

W + SL 27 ✓

13

BFA 3 ✓

16

Sooty Tern 29 ✓

38

Laysan Alb. 3 ✓

15

Ruddy Turnstone 5 ✓

Br Noddy 6 ✓

1

RTTB 1

2

W Tern

17

1

75

total 0240

Great Frigate

3

Blk. Noddy

21

BB Tern

1

127

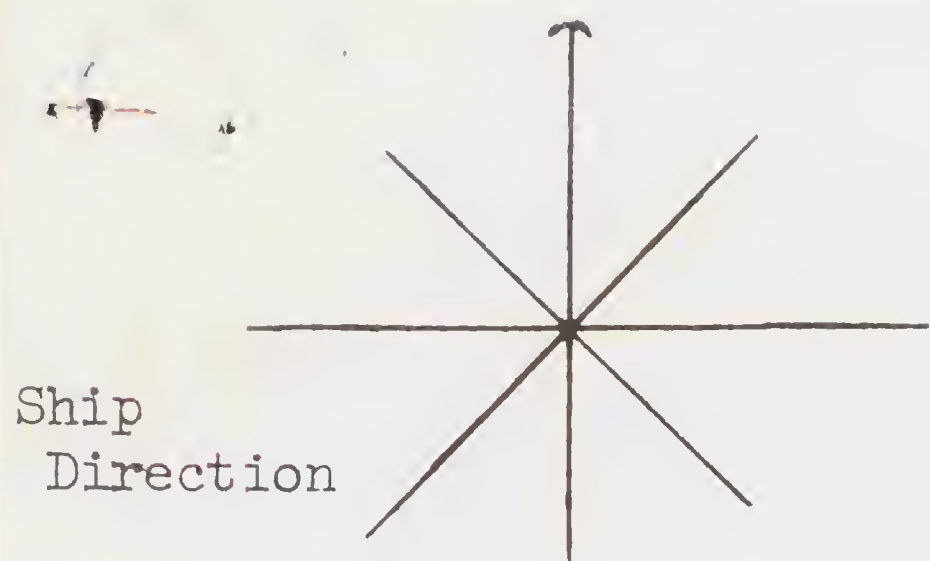


$$\begin{array}{r}
 65 \quad 428 \\
 \quad 31 \\
 \hline
 \quad 562 \\
 \quad 565
 \end{array}$$

$$\begin{array}{r}
 128 \\
 135 \\
 \hline
 263
 \end{array}$$

$$\begin{array}{r}
 269 \\
 75 \\
 \hline
 60 \\
 404
 \end{array}$$





Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

SPECIMEN

or

DIR. BAND NO. REMARKS

OBSERVERS:

0900-1100 Thompson

Date 30 May 1967

Pg. # 1

Diurnal

LT 2087

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0900					open observations, similar at midday
0901	FT	1✓	W		
0902	W.T.S.	1✓	E		2+
0903	Laysan A	3✓	⊙		
0904	ST	1✓	W		Ad.
0906	BFA	1✓	⊙		following ship
0907	ST	2✓	W		No.
0908	FT	1✓	W		
0909	RTTB	1✓	W		
0910	FT	2✓	⊙		on H2O
0912	BFA	1✓	⊙		Feeding.
0920	ST	2✓	⊙		following ship
0922	B.P.P.	1✓	W		Ad.
TF 0930	FT	1✓	W		
	ST	6✓			Ad.
0933	FT	3✓	E		
0934	New Zealand Shearwater	1✓	W		
0935	ST	2✓	W		Ad.
0936	Bulwer's	1✓	W		
0937	W.T.S.	1✓	W		2+
TF 0938	ST	6✓	W		Ad.
0939	FT	2✓	E		
0942	Sooty shr.	1✓	W		white wing lining
TF 0943	ST	13✓	W		
0945	ST	1✓	W		Ad.
0950	BFA	4✓	⊙		following Ad ne TUS
1000	FT	1✓	⊙		
1006	FT	1✓	⊙		
1007	Laysan A	3✓	⊙		Feeding
1011	W.T.S.	2✓	SE		2+
1012	ST	4✓	W		Ad.
1013	W.T.S.	1✓	SW		2+
1015	ST	1✓	N		Ad.
1017	FT	1✓	W		
1020	ST	3✓	W		
1024	ST	3✓	W		

LA - 16

BFA - 30

45 W.T.S. - 61

N.Z.S. - 1

S.S. - 1✓

Bulwer's - 1✓

BIP - 1✓

Small Plover - 1✓

RTTB - 1✓

GF - 1✓ Ad

BFB - 2✓ Ad

RFB - 1✓ Ad

66, 13, 6 14 ST - 171✓

2, 10, 6 67 FT - 113✓

CNT - 1✓

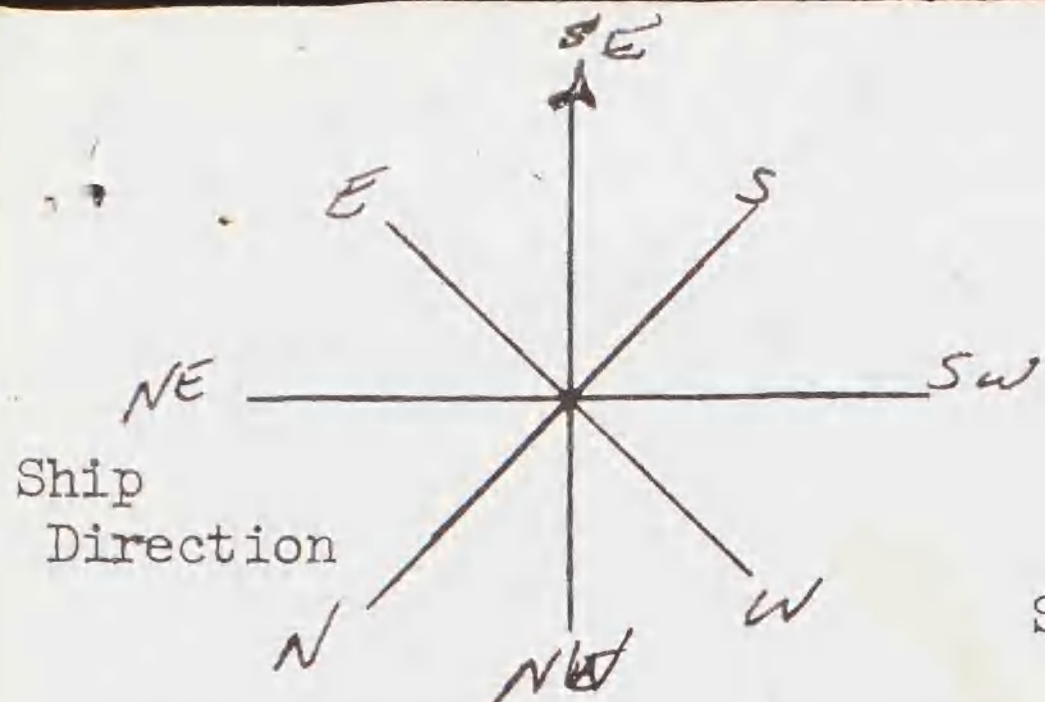
29 HNT - 31✓

GBT - 5✓

RTMstone - 3✓

441





Ship  
Direction

SMITHSONIAN INSTITUTION

DIVISION OF BIRDS

AT SEA DAILY LOG - E Leeward Is.

SPECIMEN

or

Lt 2087  
Diurnal

OBSERVERS:

0900-1100 Thompson

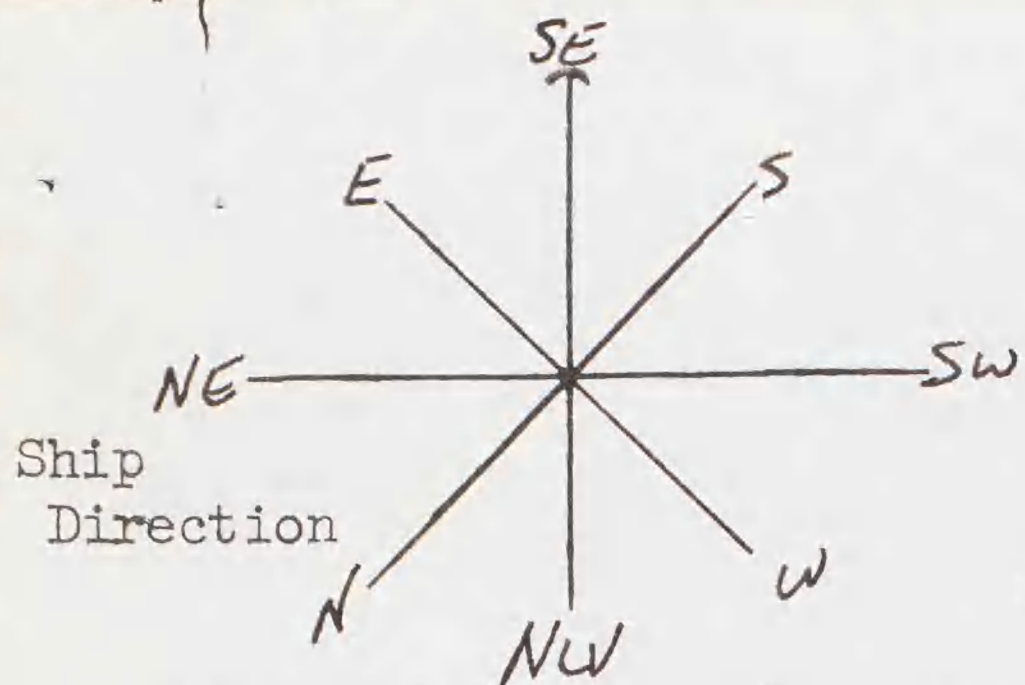
1100-1300 Tux

Date 30 May 1967

Pg. # 2

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1031	FT	1 ✓	Q		feeding
TF 1032	ST	2 ✓	N		
1041	Small Pterodroma	1 ✓	W		Ad's
1042	FT	1 ✓	Q		not a BWP ? BWP
1048	S.T.	2 ✓	W		
1055	F.T.	1 ✓	W		Ad's.
1103	F.T.	1 ✓	NE		
1105	B.F.A.	5 ✓	Q		following ship.
1106	F.T.	1 ✓	NE		
1107	S.T.	2 ✓	NW		adults.
1109	W.T.S.	1 ✓	SE		lt ph.
1115	F.T.	1 ✓	W		
1116	B.F.A.	2 ✓	Q		following ship - total at 7
1118	RT	3 ✓	Q		
1120	ST	2 ✓	W		Ad
1121	FT	2 ✓	W		
1130	W.T.S.	1 ✓	W		Ad
1131	S.T.	3 ✓	W		Ad's.
1135	F.T.	1 ✓	E		
1136	W.T.S.	1 ✓	NE		Ad
1137	ST	3 ✓	W		Ad.
1140	Laysan A.	2 ✓	SE		
1142	F.T.	1 ✓	Q		
1150	S.T.	2 ✓	SE		adults.
1155	S.T.	1 ✓	Q		adult
	F.T.	4 ✓	Q		
1157	Gn. Frig.	1 ✓	Q		circling - adult ♀
1158	F.T.	1 ✓	Q		
1203	S.T.	1 ✓	Q		adult.
1206	F.T.	1 ✓	Q		feeding.
1215	S.T.	1 ✓	Q		adult
1215	F.T.	2 ✓	SE		
1220	W.T.S.	1 ✓	Q		
1234	F.T.	2 ✓	Q		lt ph.
	HNT	2 ✓	Q		





SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

~~1100-1300+~~ TUX  
~~1300+~~ - Thompson

Date 30 May 1967  
Pg. # 3

SPECIMEN or LT 2087  
LEEWARD IS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1237	Sooty T.	4✓	SE		adults.
1243	W.T.S.	1✓	SE		lt. ph.
1246	Sooty T.	3✓	NE		adult.
1254	Fairy T.	1✓	⊙		
1258	Sooty T.	3✓	NE		adults
TF 1302	W.T.S.	1✓	SE		lt ph.
TF 1303	Fairy T.	5✓	NE		traveling
TF 1307	Sooty T.	2✓	SE		adults } traveling
	H.N.T.	4✓	SE		
1311	Sooty T.	1✓	NE		adult
1315	W.T.S.	1✓	NE		lt ph.
FF 1320	Fairy T.	60✓			
	Sooty T.	80✓			adults.
	H.N.T.	25✓			
	W.T.S.	45✓			lt ph.
	B.F.B.	1✓			adult
	Laysan A.	3✓			
1326	B.F.α.	6✓	⊙		} following ship.
	Laysan A.	5✓	⊙		
1335	B.F.B.	1✓	SE		adult.
1336	Fairy T.	1✓	E		
	Sooty T.	2✓	E		adults
1340	W.T.S.	1✓	SE		lt ph.
1345	Sooty T.	1✓	S		adult
T.F. 1345	Sooty T.	6✓	E		adults } traveling
	Fairy T.	1✓	E		
1350	Common N.	1✓	E		
1350	W.T.S.	1✓	SE		lt ph.
1355	Fairy T.	2✓	SE		
1400	W.T.S.	1✓	⊙		lt ph.
1410	ST	1✓	⊙		
	FT	1✓	⊙		
1415	W.T.S.	1✓	N		2+
1422	FT	1✓	⊙		

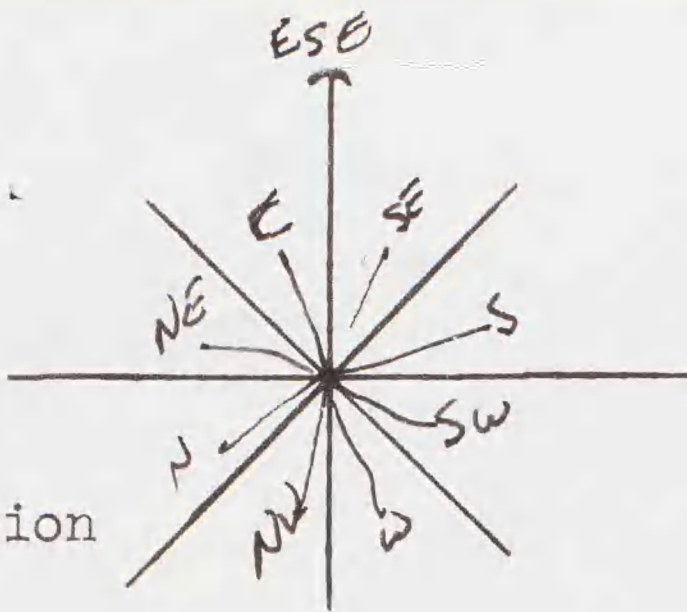
LA  
BFA  
WTS  
N.S.  
SS  
RTB  
RFB

feeding.

following ship.

traveling





Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

*Thompson*

SPECIMEN  
or

*Leewards Island*  
*LT 2087*

Date *30 MAY 1967*  
Pg. # *4*

TIME SPECIES # DIR. BAND NO. REMARKS

1425	GBT	2✓	N		
1427	FT	1✓	G		feeding
1428	GBT	1✓	N		
1439	K.T.	1✓	S		
1442	BKA	11✓	CO		Behind TUG
1443	RFB	1✓	SW		2+
1444	GBT	1✓	S		
1445	FT	1✓	W		
1457	GBT	1✓	N		Ad
	ST	1✓			Ad.
	FT	1✓			
1500					Watch moved to Starboard Quarter Deck
1503	FT	1✓	CO		
1510	FT	1✓			
1515	FT	1✓	NNE		
1520			SSW		
					Reet in sight, close observation

H9 120  
6796  
30  
45  
216  
261



30 May

midway -

Reel of ~~terms~~  
~~hisinski~~

Laysan Albatross

6

2

8

16 ✓

B-F Albatross

6

7

6

11

30 ✓

W-T Shear

5

4

52

61 ✓

BIP

1

1 ✓

Bulwer's Shearwater

1

1 ✓

Bulwer's Pet.

1

1 ✓

Sooty Tern

44

23

103

1

171 ✓

RTTB

1

1 ✓

Fairy Tern

13

21

72

7

113 ✓

Sooty Shear

1

1 ✓

Green Frigate

1

1

1 ✓

San. Pterodroma

1

1

1 ✓

Blk Noddy

2

20

29

-

31 ✓

Ruddy Turnstone

3

3 ✓

BFB

2

2 ✓

Common Noddy

1

1 ✓

G-B Tern

5

5 ✓

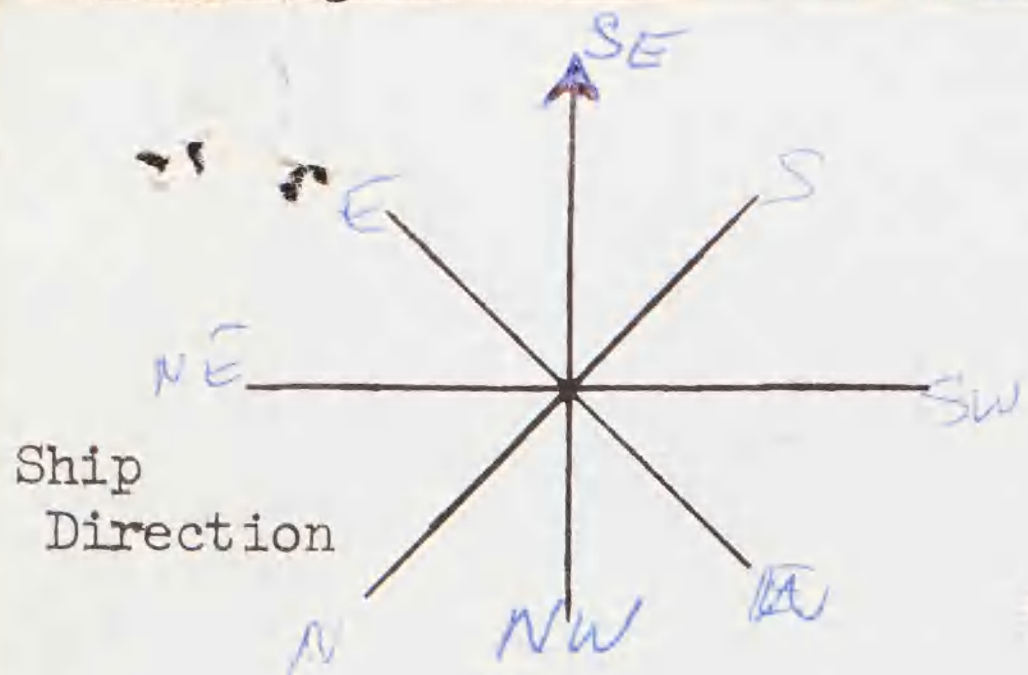
RFB

1

1

441





SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

0830-1000  
1030-1200 Thompson

Date 12 June '67  
Pg. # 1

SPECIMEN or LT 2087

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0830					open OBS.
0835	Sooty T.	1✓	NW		adult.
0838	BFA	3	⊙		following ship
0840	W.T.S.	1	⊙		lt. ph.
0841	Sooty T.	4✓	⊙		adults.
0843	Sooty T.	3✓	⊙		adults
TF 0844	Sooty T.	6	SE		adults traveling
TF 0845	" "	10	N		adults traveling
0846	W.T.S.	1	⊙		lt. ph.
0855	W.T.S.	2	W		lt. ph.
TF 0900	Sooty T.	10	⊙		adults
0901	W.T.S.	1	⊙		lt. ph.
0902	" "	2	SE		lt. ph.
0907	Sooty T.	1✓	NW		adult.
0910	G.B.T.	1	⊙		
0915	W.T.S.	3	S		lt. ph.
0919	Ruddy T.	1	⊙		
0920	W.T.S.	2	⊙		lt. ph.
0921	Sooty T.	2✓	⊙		adults.
0933	BFA	1	⊙		
TF 0935	WTS	15	SE		lt. ph.
0950	BFA	2	⊙		following ship
0952	W.T.S.	2	⊙		lt. ph.
0957	Laysan Al.	4✓	⊙		adults.
1000	Sooty T.	1	NW		lt. ph.
1002	W.T.S.	1	NW		" "
1010	" "	1	SE		adults
1013	Sooty T.	2✓	⊙		lt. ph.
1015	WTS	2	⊙		lt. ph.
1020	WTS	2	⊙		lt. ph.
1025	RFB	2	⊙		
1030	ST	2✓	W		
1031	WTS	1	W		
TF 1033	ST	6	NW		

LA - 1

BFA - 6

W.T.S. 57 64

RTTB - 1

RFB - 3 summed 2nd LT

GF - 1.5 summed

RT - 1

6, 10, 10, 9.5, 7, 8, 7.5 ST - 99.05

G.B.T. - 1

HNT - 2

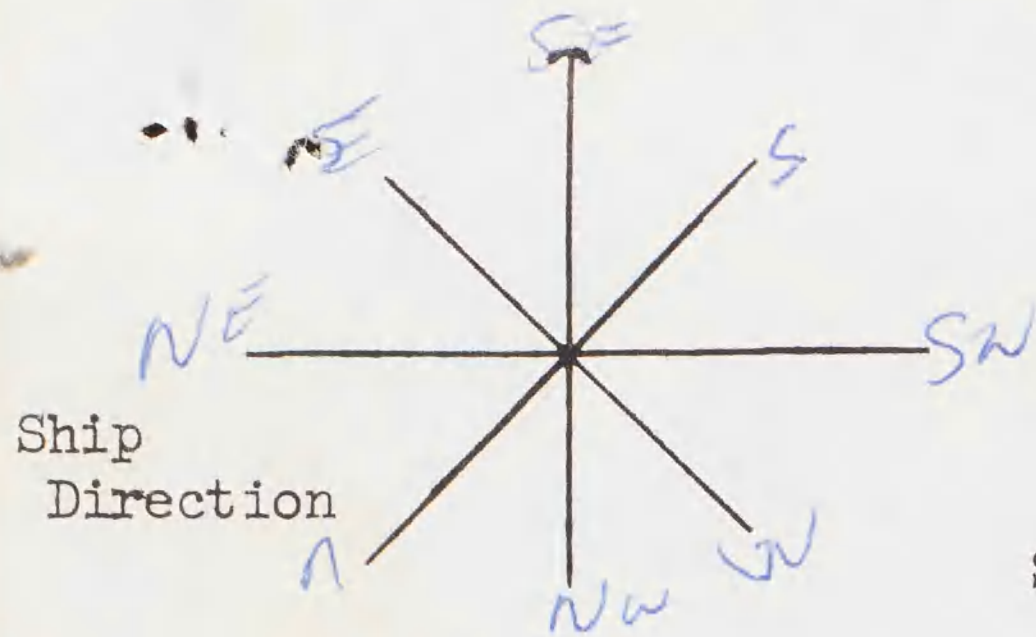
Flocks 10-79

172 ✓

100  
54  
172

33





SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

1030-1200 Thompson

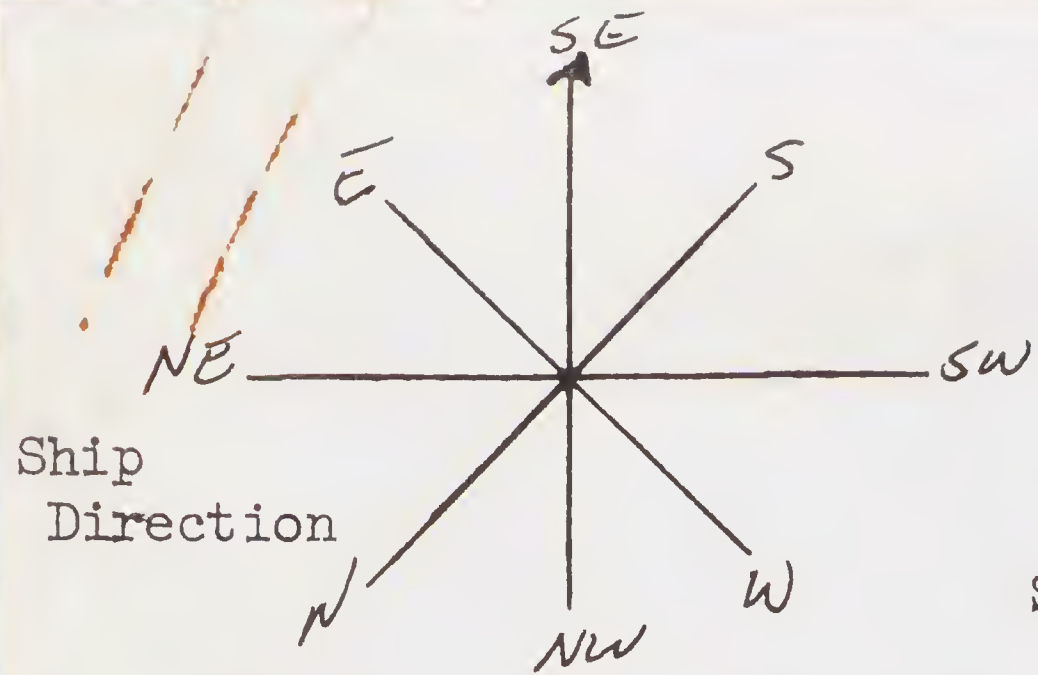
Date 12 MAY 1967  
Pg. # 2

SPECIMEN LT 2087  
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
TF 1040	ST	5	SE		Ad
1041	WTS.	1	SE		2+
1043	G.F. gull	1	NW		Sub Ad. 2.
TF 1045	ST	7	SE		Ad.
1046	ST	2	NW		Ad.
1047	WTS	3	SE		2+
1050	WTS	4	SE		Ad.
1051	ST	3	SE		Ad.
1054	WTS	2	SE		2+
1057	ST	2	SE		Ad.
1058	RTTB	1	NW		
1059	WTS	3	SE		2+
1100	ST	3	SE		Ad.
TF 1101	ST	8	NW		Ad.
	HNT	2			
TF 1102	ST	7	NE		Ad.
TF 1103	ST	5	NE		Ad.
1105	RFB	1			Sub Ad. - 2+
1107	ST	2	NW		Ad.
1113	WTS	3	SE		2+
1115	ST	4	NW		Ad.
1116	WTS	2	SE		2+
1120	WTS	3	SE		2+

35  
37  
27  
99  
64





SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

1300-1500 - TUX  
1500-1700 - CHRIS  
1700-1900 - TUX  
1900-55 - CHRIS

Date 13 JUNE '67  
Pg. # 1

SPECIMEN  
or

LT 2087

Leewards 19

TIME SPECIES # DIR. BAND NO. REMARKS

1300					ltph open obs.
1305	W.T.S.	2 ✓	⊙		
1312	G.B.T.	2 ✓	N		ADULTS
1325	Sooty T.	1 ✓	E		ADULT.
1333	Haw. Noddy	1 ✓	SE		
1335	Sooty T.	1 ✓	⊙		ADULT.
1340	B.F.B.	1 ✓	⊙		Following ship.
1348	R.F.B.	1 ✓	⊙		
1350	Sooty T.	2 ✓	NW		Light phase adult
1350	Skua	1 ✓	⊙		ADULTS
1419	Sooty T.	1 ✓	⊙		harassing TERNS
1430	Sooty T.	1 ✓	NW		ADULT.
1445	W.T.S.	1 ✓	SW		ADULT.
1458	Sooty T.	1 ✓	SE		Light phase
1515	BHA	1 ✓	SE		ADULT.
1530	W.T.S.	1 ✓	⊙		Following ship
1605	Bulwer's	1 ✓	⊙		2+
1607	Sooty Terns	4 ✓	NW		
1614	Sooty Tern	1 ✓	⊙		Ads.
1628	Bulwer's P	1 ✓	SW		Ad.
1629	RUFF	1 ✓	NW		
1637	Bulwer's	1 ✓	⊙		Sitting on the deck / Red RUFF
1644	Sooty Tern	2 ✓	SE		Ads.
1656	Newell's	1 ✓	NW		
1704	W.T.S.	1 ✓	N		2+
1712	MEXICAN JAY	1	S		very easily Told - IT HAD A WET BACK AND ITS BREATH SMELLED OF TORTILLAS!!
1750	W.T.S.	3 ✓	⊙		LTph.
1759	Sooty T.	4 ✓	SE		ADULTS.
1806	R.F.B.	1 ✓	⊙		adult ltph
1814	Gr. Frig.	1 ✓	⊙		ADULT.
1834	W.T.S.	1 ✓	NW		ltph
1835	Sooty T.	2 ✓	NE		ADULT.
1850	B.F.B.	2 ✓	NE		ADULTS.
1851	W.T.S.	1 ✓	SE		LTph.
1905	Sooty Terns	2 ✓	NW		Ads.

LA -  
✓BFA - 2  
✓W.T.S. - 10 LT  
✓Newell's - 1  
✓RFB - 2 ADLT  
✓BFB - 2  
✓G.F. - 1  
✓Bulwer's - 2  
✓S.T. - 20  
✓Skua - 1  
✓HNT - 1  
✓GST - 2

no flocks

discarded  
Hopefully other obs are  
Reliable!!



BFA

2 ✓

Wt Shear

10 ✓

LT

Newells

1 ✓

RFB

2 ✓

Ad Lt.

BFB

2 ✓

Ad

HF

1 ✓

Bulwer.

3 ✓

Sooty tern.

22 ✓

HNT

1 ✓

GBT

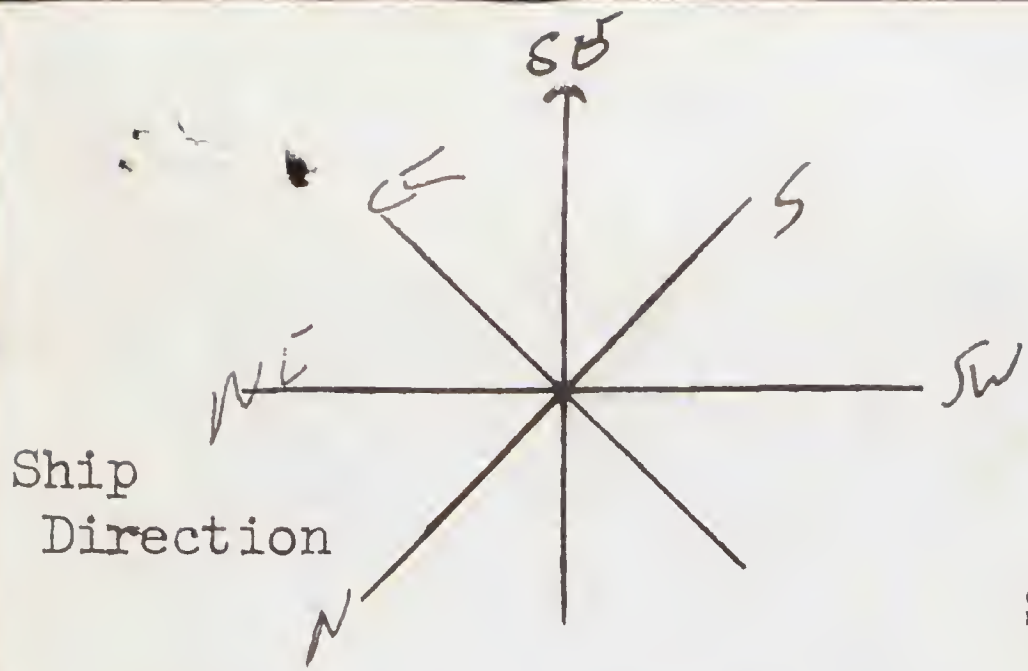
2 ✓

Skua

1 ✓

47





Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

1300-1500 - TUX

1500-1700 - CHRIS

1700-1900 - TUX

1900-55 - CHRIS

LT 2087

Date 14 JUNE

Pg. # 1

LEEWARDS 19

SPECIMEN

or

DIR. BAND NO. REMARKS

TIME

SPECIES

#

1300	BFB	1	SE	open also.	
1305	RFB	2	SE	sitting on H <sub>2</sub> O	
1306	Bulwer's	2	SE	immatures	
1307	WTS.	1	SE	Light phase	
1317	WTS	1	SE	" "	
1322	Brown B.	1	SE	adult ♀	
1323	Sooty T.	1	SE	adult	
1324	Bulwer's	1	SE		
1325	Bulwer's	1	SE		
1345	RFB	1	SE		
1346	Brown B.	1	SE		
1347	Bulwer's	1	SE		
1348	Fairy T.	1	SE		
1350	BFB	3	SE	feeding	
1355	Sooty T.	1	SE	adult, sitting on water.	
1358	RFB	1	SE	adult	
1359	Bulwer's	1	SE	adult LT. ph.	
1403	WTS	1	SE	LT ph.	
1403	Sooty T.	1	SE	adult.	
1407	Sooty T.	1	SE	adult.	
1412	Bulwer's	1	NW		
1440	RFB	1	SW	LT. ph. adult.	
1443	WTS	1	SE	LT ph.	
1500	RFB	1	NE	AD LT.	
1504	Newell's	1	SW		
1510	RFB	1	SE	AD LT	
1511	ST	1	SE	AD	
1512	WTS.	1	SE		
1525	RFB	1	SE	AD LT	
1526	ST	1	NE	AD	
1527	Bulwer's	1	N		
1534	Bulwer's	1	N		
1535	WTS.	1			
1538	ST	2	N	on H <sub>2</sub> O, LT	
1540	Bulwer's	1	NW	AD.	
1543	Bulwer's	1	NW		
1546	WTS.	1	SE	AD LT	

30 (12) W.T.S. 106 ✓

Newell's 26 ✓

5 Skuas 1 ✓

Bulwer's 27 ✓

2 BKB - 6 ✓

25, 1 RFB - 35 ✓

12, 2 BB - 16 ✓

20, 2 ST 111 ✓

10 GBT - 10 ✓

FT - 1 ✓

CNT - 29 ✓

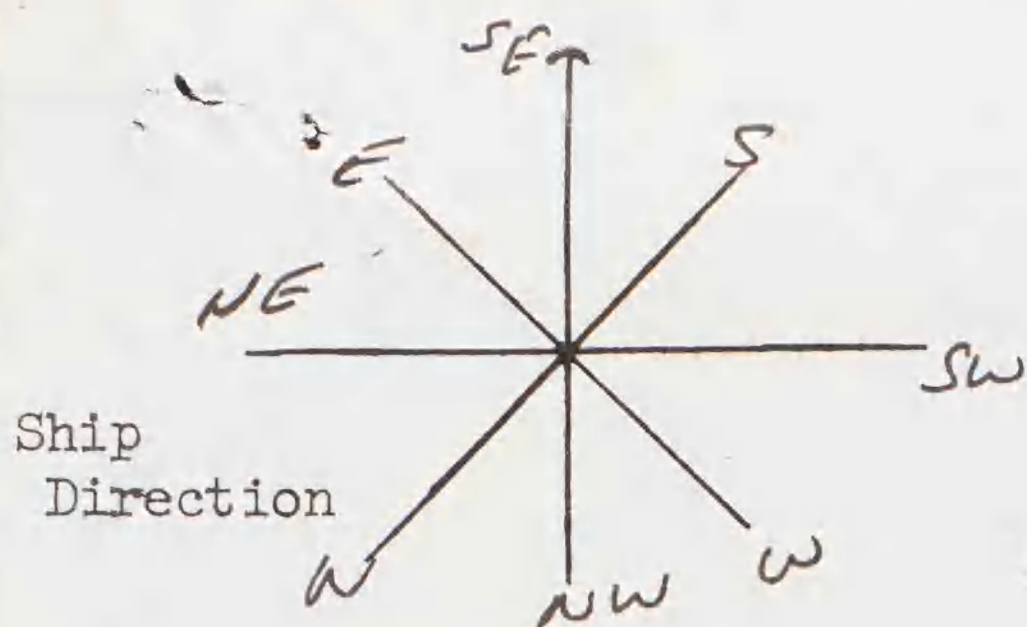
Flocks - 4/162

368

38  
406

406





SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

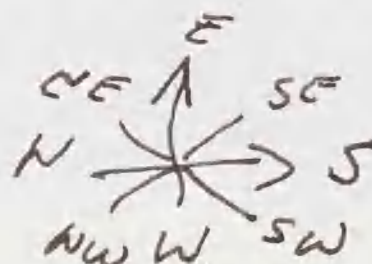
Thompson

Date <sup>June</sup> 14 MAY 1967  
Pg. # 2

SPECIMEN  
or

LT 2087  
Leeward #19

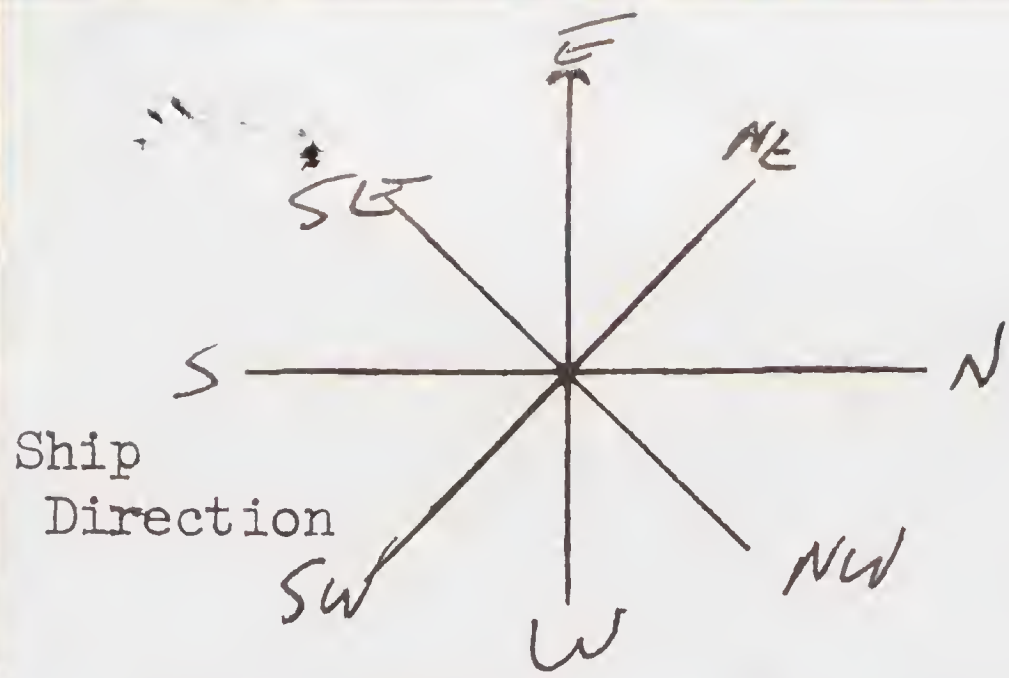
TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1550	Bulwer's	2	NE		
FF 1551	W.T.S.	1			
1555	RFB	25±3			18 Ad LT, 6 Imm } Fish, Tuna jumps
	CNT	30±5			
	Newell's	8			
	W.T.S.	30±5			
	T.B.	12			
	S.T.	20±5			
1604	CNT	2			on H <sub>2</sub> O
	ST	2			3 DK, other LT
TF 1610	CNT	8	SW		Ads
1612	Newell's	1	N		
1614	ST	2	NW		Ad
1624	ST	4			
1625	W.T.S.	2			LT
1630	CNT	3	N		
	ST	1			Ad
1631	Bulwer's	2	N		
1632	ST	1	E		
1633	ST	1	S		
1636	CNT	1	NW		
1637	Bulwer's	1	NW		
1638	Newell's	1	SW		
1639	Bulwer's	1	NW		
1640	RFB	1	N		Ad LT
1642	ST	4	SW		Ad
1643	Bulwer's	1	NE		
1646	ST	11			Ad
	W.T.S.	1			DK phase
1650	S.T.	1			Ad. feeding
FF 1654	ST	2	W		Ad
	BB	2			on H <sub>2</sub> O
	RFB	2			"
	RFB	1			"
	GBT	10			
	Whale sp.				← very small Fin 30'



28  
17  
12  
125  
162

29  
34  
36  
23  
34  
137





SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

1700-1900 - Tux  
1900 - SS chris

Date <sup>14</sup> June 1967  
Pg. # 3

SPECIMEN  
or

LT 2087  
leewards

TIME - SPECIES # DIR. BAND NO. REMARKS

1700	W.T.S.	1	○		Lt. ph.
1701	Sooty T	2	○		ADULTS
1703	Sooty T.	4	SW		adults
1703	W.T.S.	4	○		Lt ph
1705	Sooty T	3	○		ADULTS
1707	W.T.S.	3	○		2 LT, 1 DK ph.
1708	Sooty T.	4	○		ADULTS
1711	W.T.S.	2	○		LT ph.
1713	C. Noddy	1	N		ADULTS
1713	Sooty T.	3	N		sitting on H <sub>2</sub> O
1715	Newell's	3	○		
1718	Newell's	1	○		
	W.T.S.	1	○		DK ph.
	C. Noddy	1	W		
1719	Sooty T.	2	NE		adults
1720	Bulwer's	1	○		
1721	Bulwer's	1	○		
1721	W.T.S.	1	○		Lt ph
1722	Sooty T.	2	N		ADULTS
1723	Newell's	1	NE		
1725	W.T.S.	2	○		LT. PH.
1726	Sooty Shearwater	1	NE		white under wing lining
1728	Sooty T.	4	○		ADULTS
1729	W.T.S.	1	○		LT. PH.
1730	Newell's	1	NE		
1733	Sooty T.	4	NE		ADULTS
1735	W.T.S.	1	SW		LT ph.
1738	Bulwer's	1	N		
1739	W.T.S.	1	W		Lt ph.
1741	W.T.S.	1	W		" "
1743	Sooty T.	3	NE		adults
1748	C. Noddy	1	NE		
1800	W.T.S.	12	○		21
1805	CNT	3	○		2T
1806	W.T.S.	4	○		AD
1807	S.T.	3	○		
1807	CNT	2	○		
1810	W.T.S.	8	○		2T - not a flock - sweep.

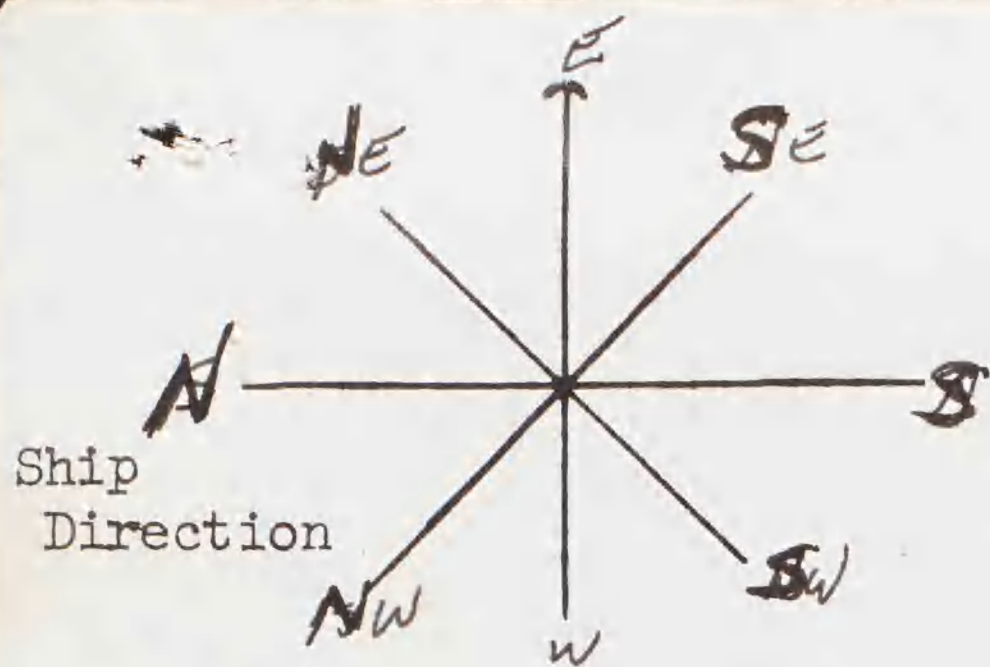
sightings all  
within visual range  
of Nihaun & Kaula

1809 6 mammals

Blunt  
hairs

Black 18'-20' feet





SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

TUV - 1700 - 1900

Chris 1900 - 55

Date 14 June '67

Pg. # 4

SPECIMEN  
or

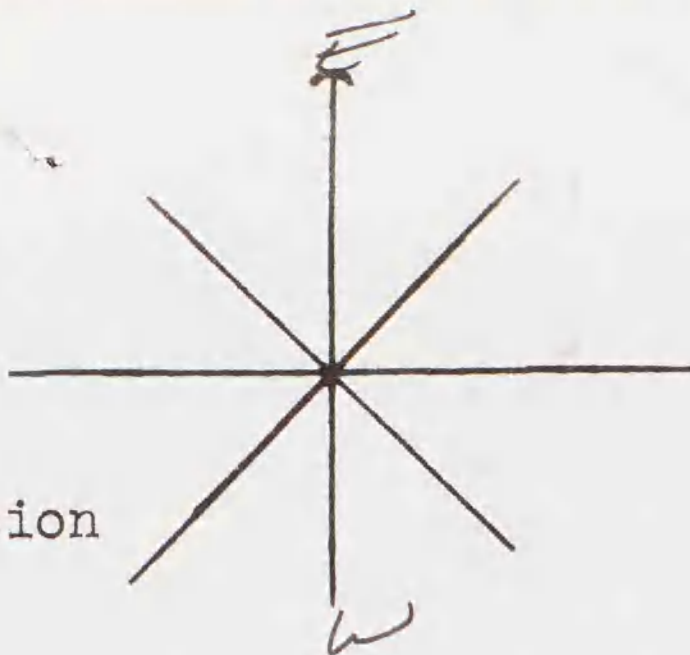
LT 2087

Leewards 19

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1824	Sooty T.	2			adult.
1826	Bulwer's	1			
1826	WTS	2	W		lt. ph.
1827	Bulwer's	1			
1830	Bulwer's	1	N		
1832	W.T.S.	1	O		lt. ph.
1833	Sooty T.	1	N		adult.
1834	W.T.S.	2	O		lt. ph.
1840	Sooty T.	3	NW		adults.
1840	Common Noddy	1	O		
1842	W.T.S.	2	N		lt. ph.
1843	Bulwer's	1	O		
1844	Newell's	1	O		
1846	W.T.S.	3	O		
1850	ST	4	W		2T
1854	Common Noddy	1	SW		
1855	WTS	1	N		lt. ph.
1856	ST	2	O		
1856	Newell's	1	NE		
1857	WTS	1	NE		lt. ph.
1858	WTS	1	O		lt. ph.
1900	Newell's	1	SE		
1901	CNT	1	S		
1902	WTS	1	SW		2T
1903	CNT	4	O		Sweeper Cont
1905	W.T.S.	3	O		2T
1906	CNT	1	SE		
1907	ST	1	S		2T
1908	Bulwer's	1	E		
1909	Newell's	1	W		
1910	W.T.S.	1	W		DK
1911	W.T.S.	3	N		
1912	CNT	1	S		
1913	CNT	3	SW		
1914	Newell's	1	NE		



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

Date 14 June '67  
Pg.# 5

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

1915 S.T. 3 W AD

1916 C.N.T. 1 W

1917 W.T.S. 1 W

1918 C.N.T. 1 ♀ #63-245-- Blue streamer - B Tuxson

1919 W.T.S. 1 W 2T

1920 Newell's 2 ♂

1923 S.T. 3 S AD

1924 NEWELLS 2 SITTING ON THE POT-

1925 ST 1 W AD

1928 CLOSE OBSERVATION SUNSET



167  
41  
54  
106  

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368